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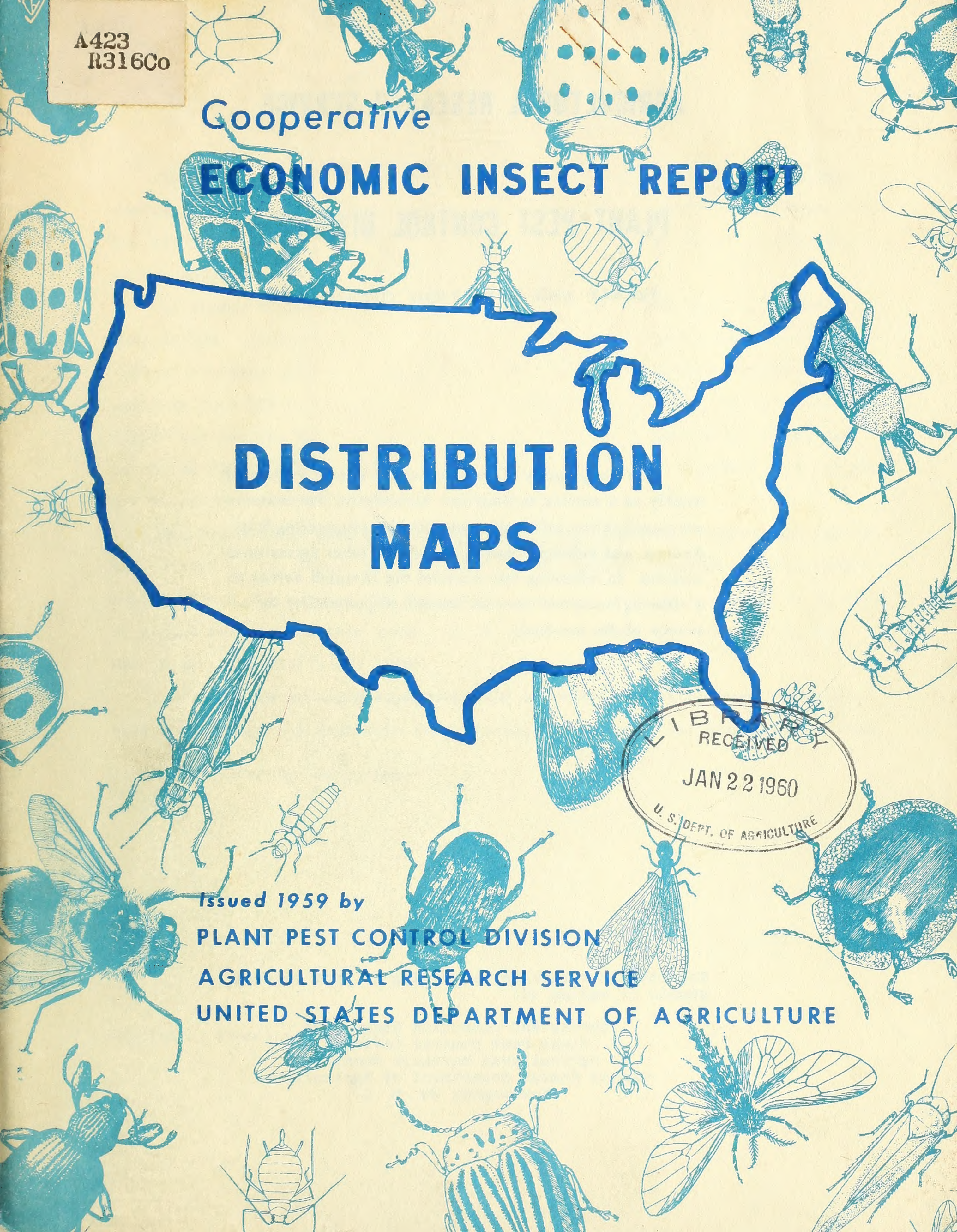

Cooperative

ECONOMIC INSECT REPORT

DISTRIBUTION MAPS

Issued 1959 by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

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AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Survey and Detection Operations
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

965336

DISTRIBUTION MAPS OF SOME INSECT PESTS IN THE UNITED STATES*

Special distribution maps on important insect pests, mostly introduced species, have been carried in the Cooperative Economic Insect Report since 1954. The records for most of these maps were obtained from special state reports, survey and detection files and the U. S. National Museum.

In answer to many requests, the maps have been assembled in a single compilation. Included with the special series are maps on certain Plant Pest Control Division programs and several major pests of perennial interest such as European corn borer and alfalfa weevil. Insofar as possible, the material issued earlier has been brought up to date, mainly through use of survey and detection files. Additional records on these species are welcomed, and, if such are received, will be included in revisions.

The grasshopper maps are from the series on rangeland grasshoppers, which was carried in the Report in 1956-1957. A. B. Gurney, coauthor of that series, has realigned the maps on the _Melanoplus_ _mexicanus_ complex according to findings of recent research in this group. (A. B. Gurney and A. R. Brooks, U. S. Nat. Mus. Proc. 110(3416):1-93, 1959).

The maps are arranged alphabetically under subject categories. Copies of this compilation are available from the address shown on the inside front cover.

Survey and Detection Operations
PPC, ARS
December 1959

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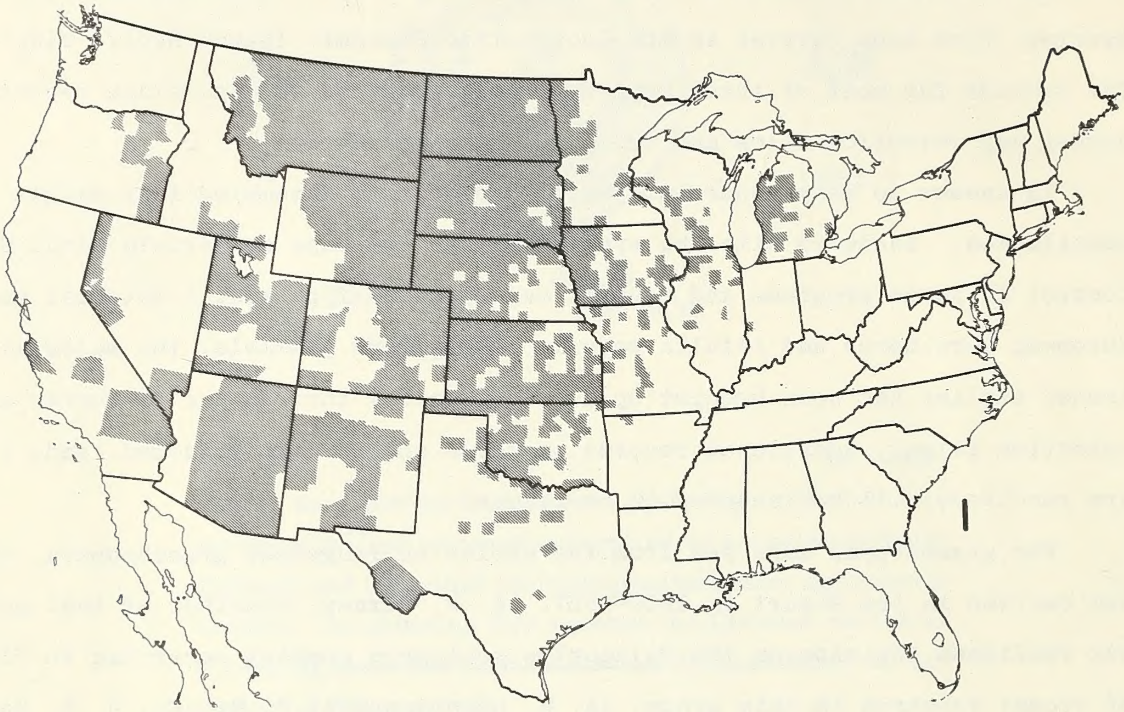
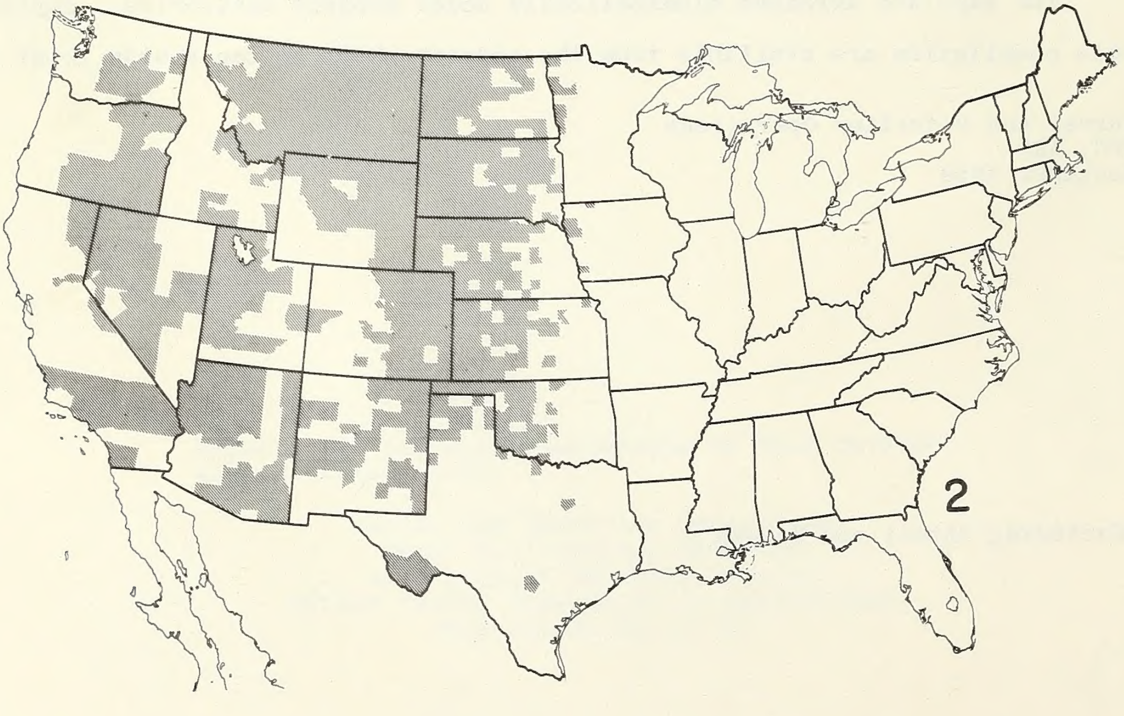
*Excluding Hawaii and Alaska

CEREAL AND FORAGE INSECTS

Ageneotettix deorum (a grasshopper)

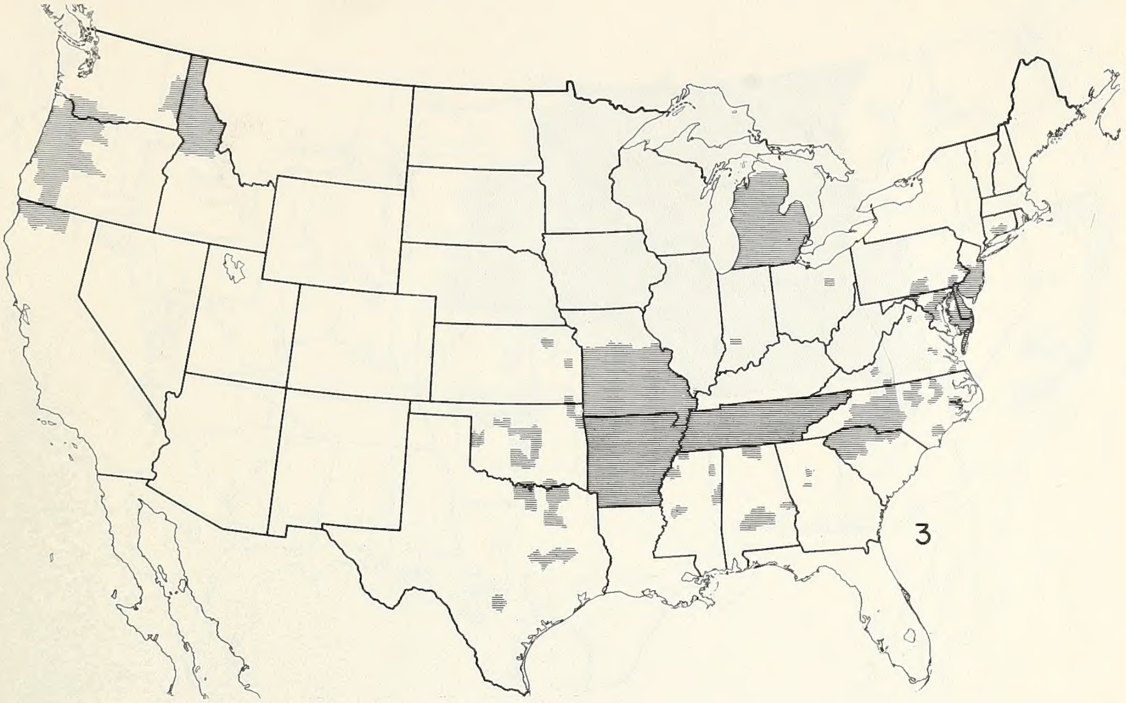


Aulocara elliotti (a grasshopper)



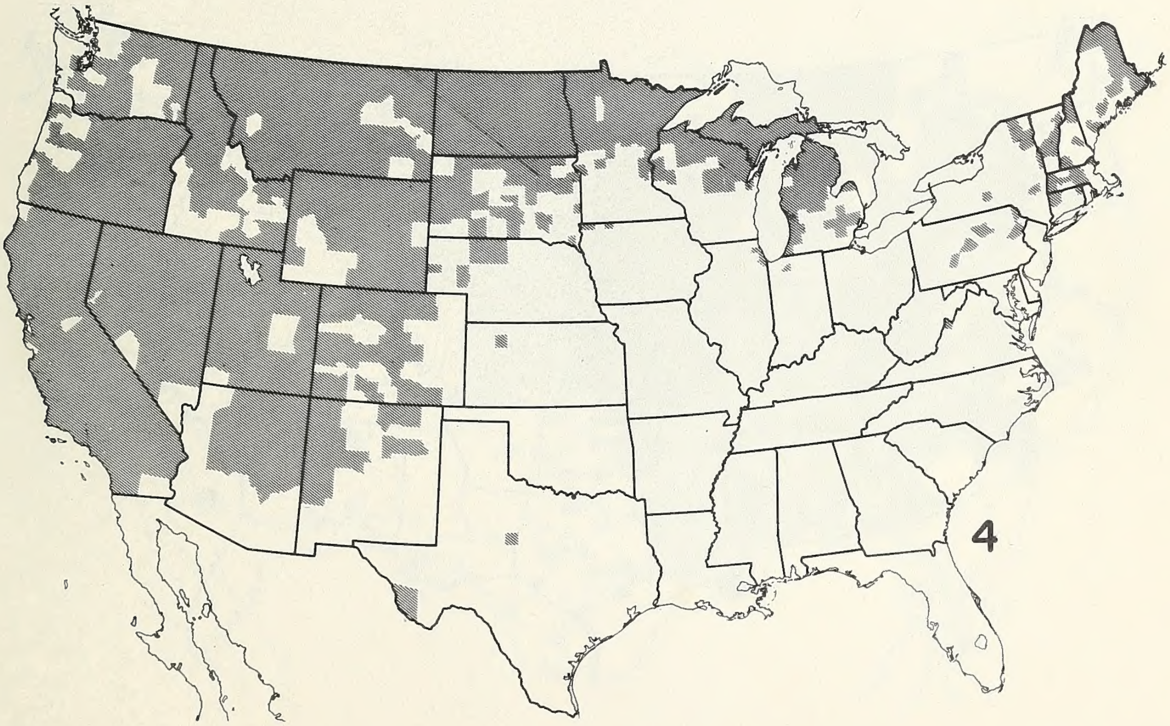
CEREAL AND FORAGE INSECTS

Bruchus brachialis (vetch bruchid)



3

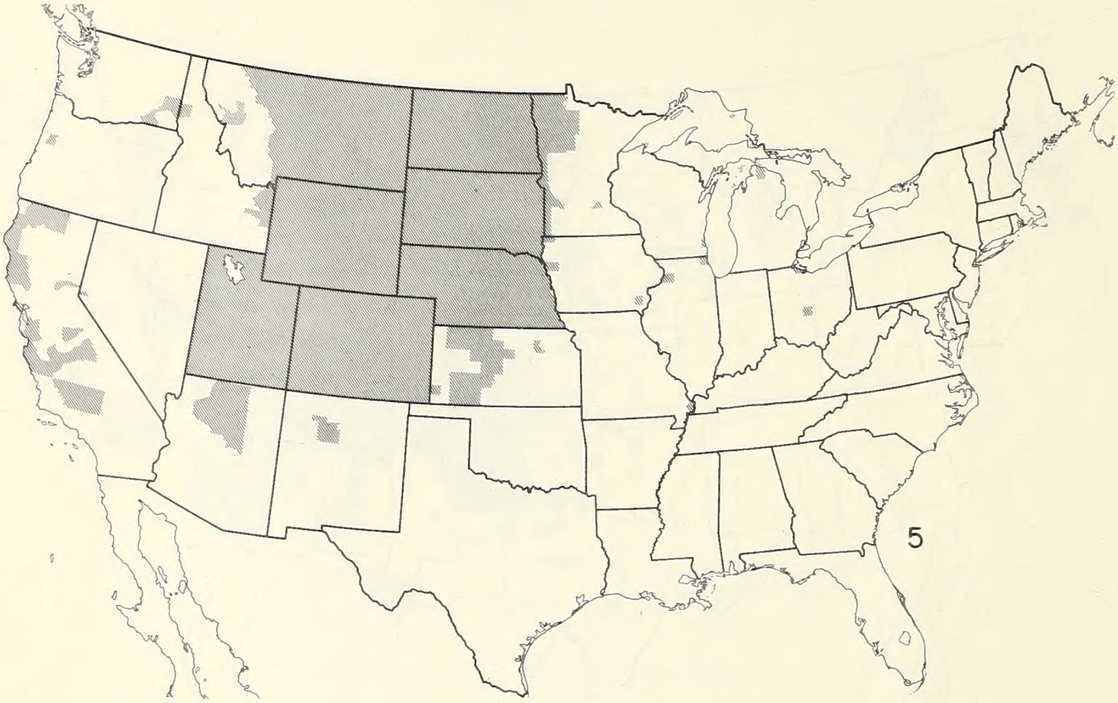
Camnula pellucida (clear-winged grasshopper)



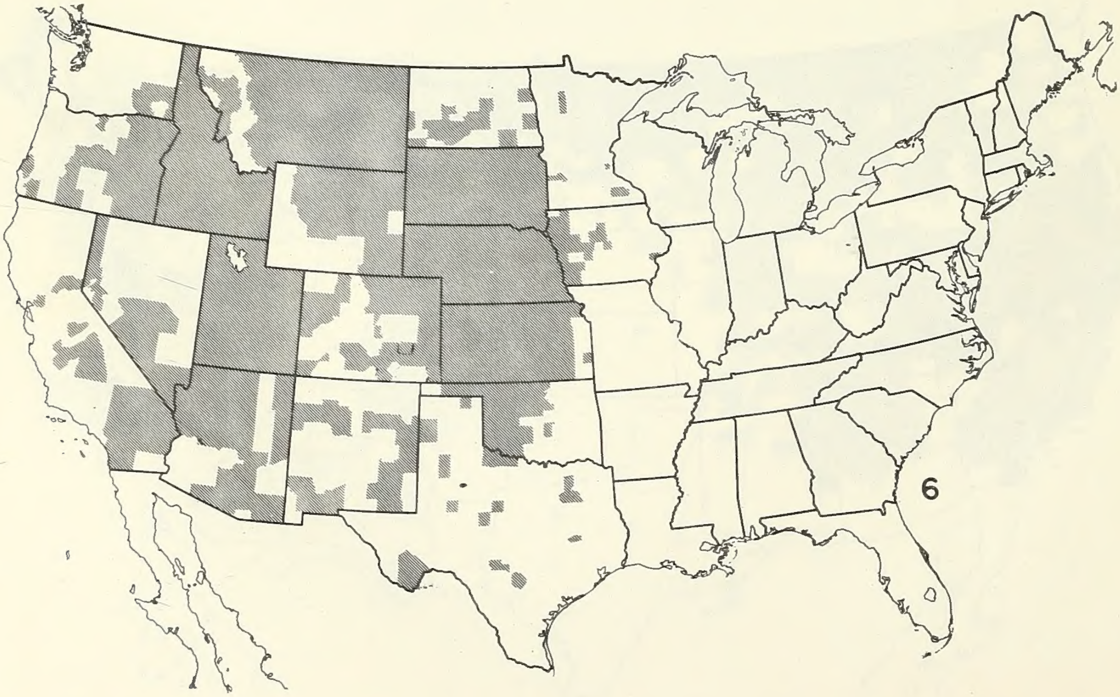
4

CEREAL AND FORAGE INSECTS

Cephus cinctus (wheat stem sawfly)

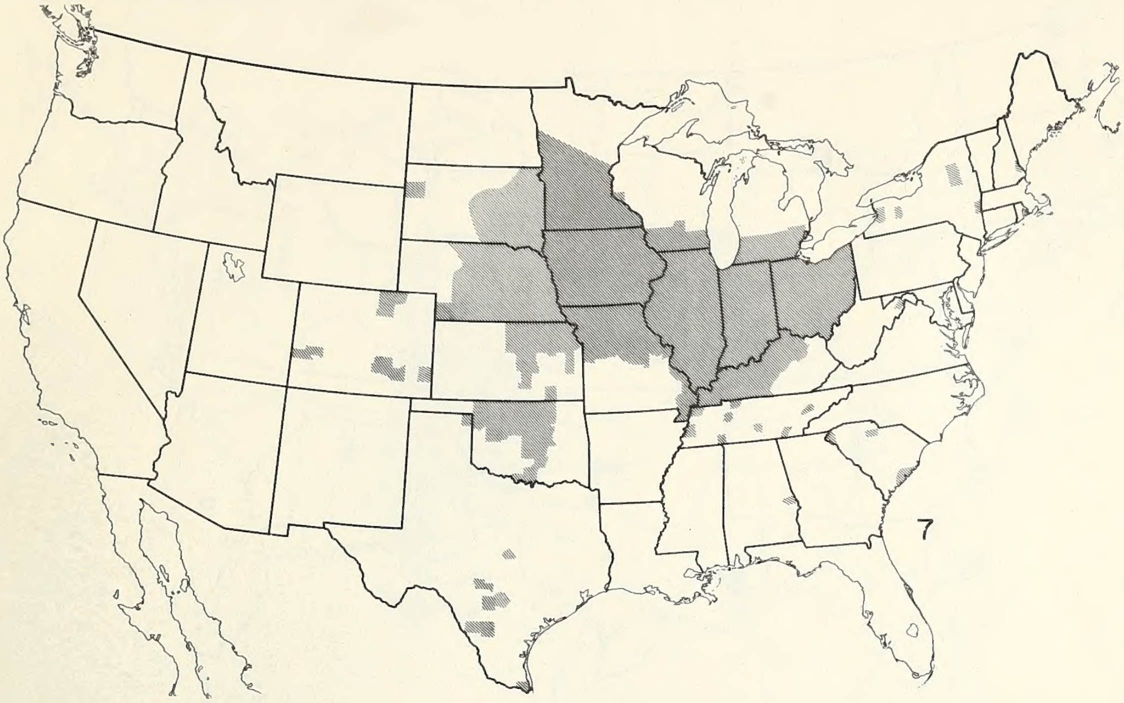


Chorizagrotis auxiliaris (army cutworm)



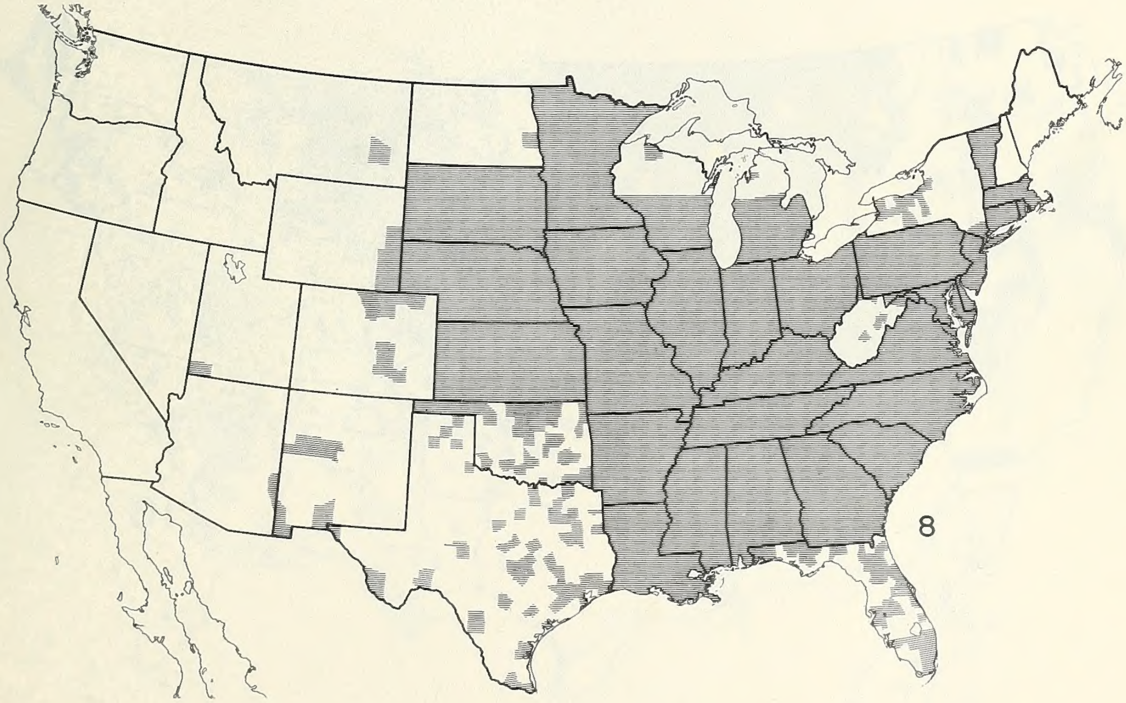
CEREAL AND FORAGE INSECTS

Diabrotica longicornis (northern corn rootworm)



7

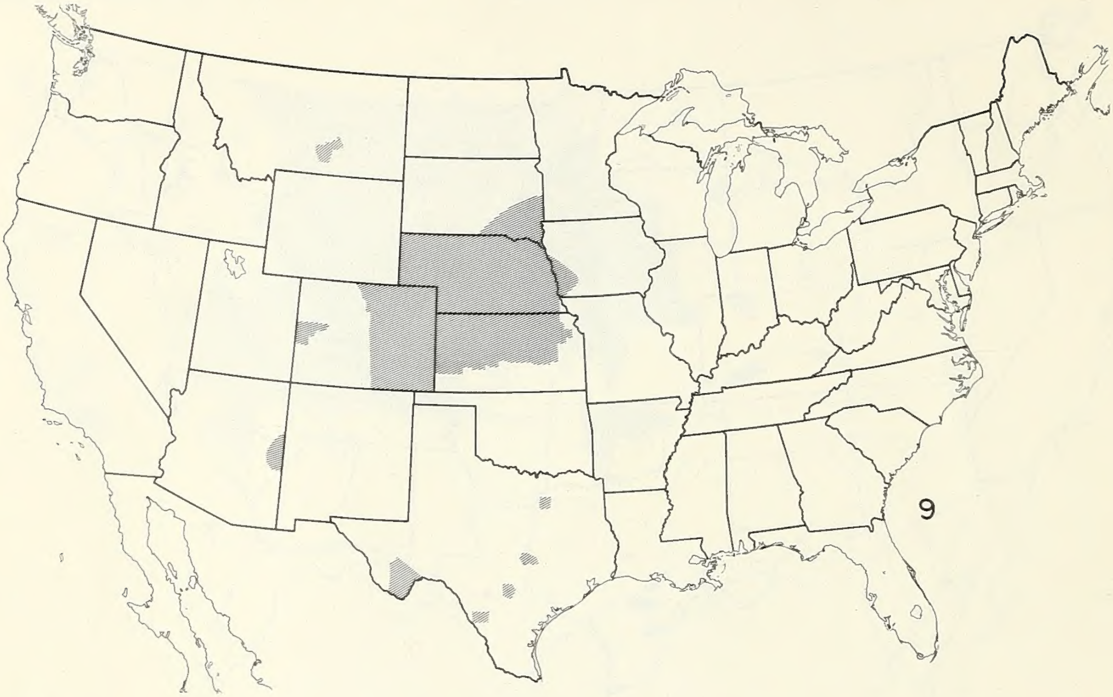
Diabrotica undecimpunctata howardi (southern corn rootworm)



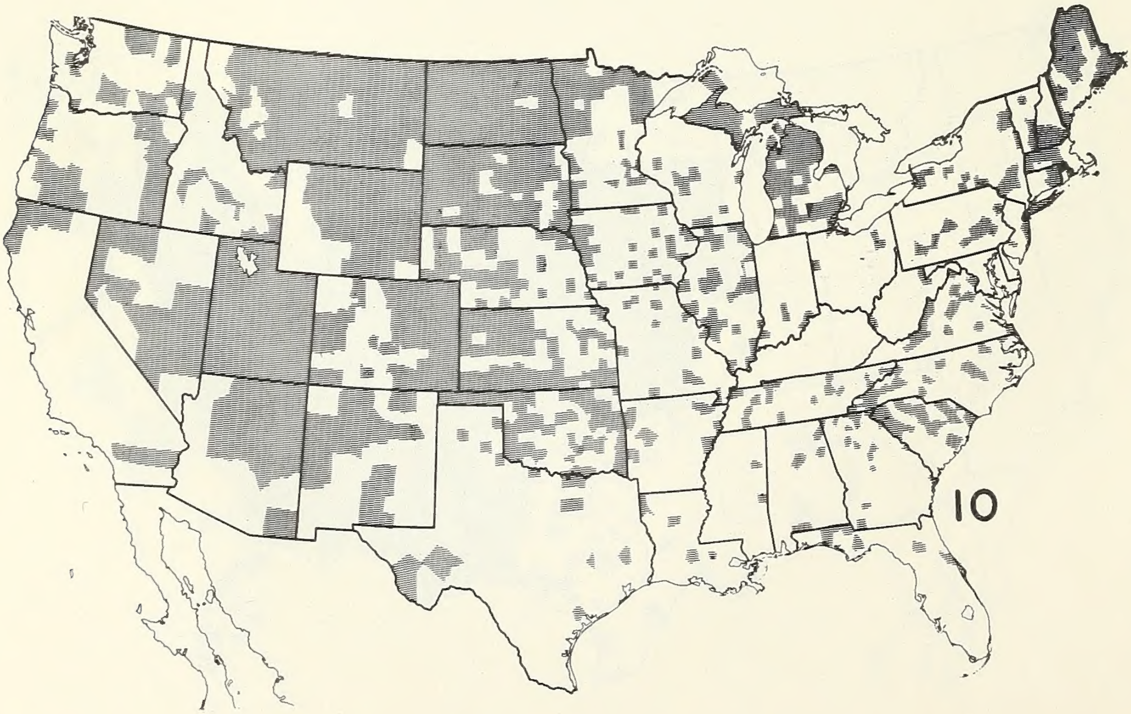
8

CEREAL AND FORAGE INSECTS

Diabrotica virgifera (western corn rootworm)

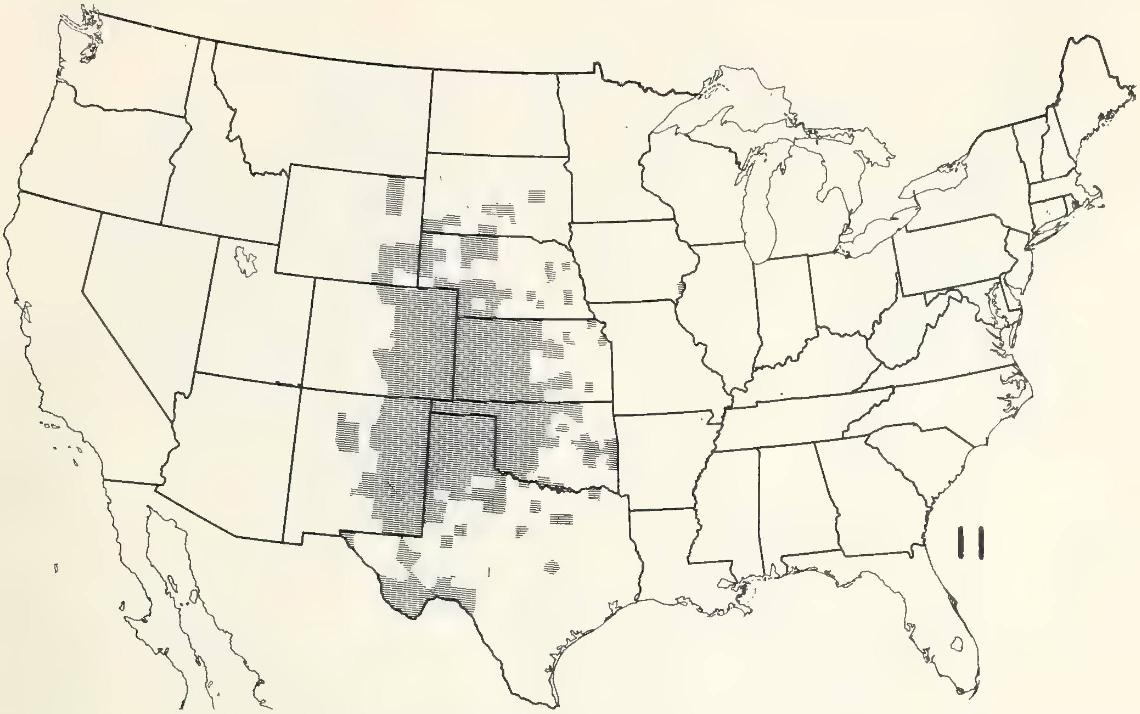


Dissosteira carolina (Carolina grasshopper)

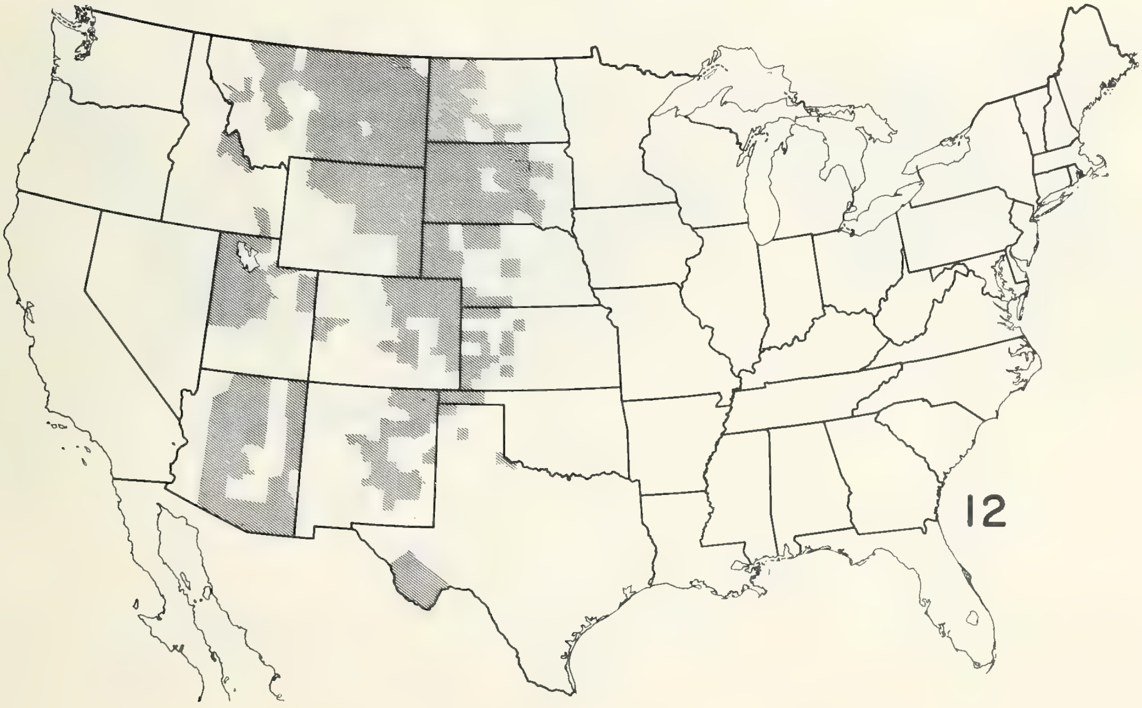


CEREAL AND FORAGE INSECTS

Dissosteira longipennis (High Plains grasshopper)

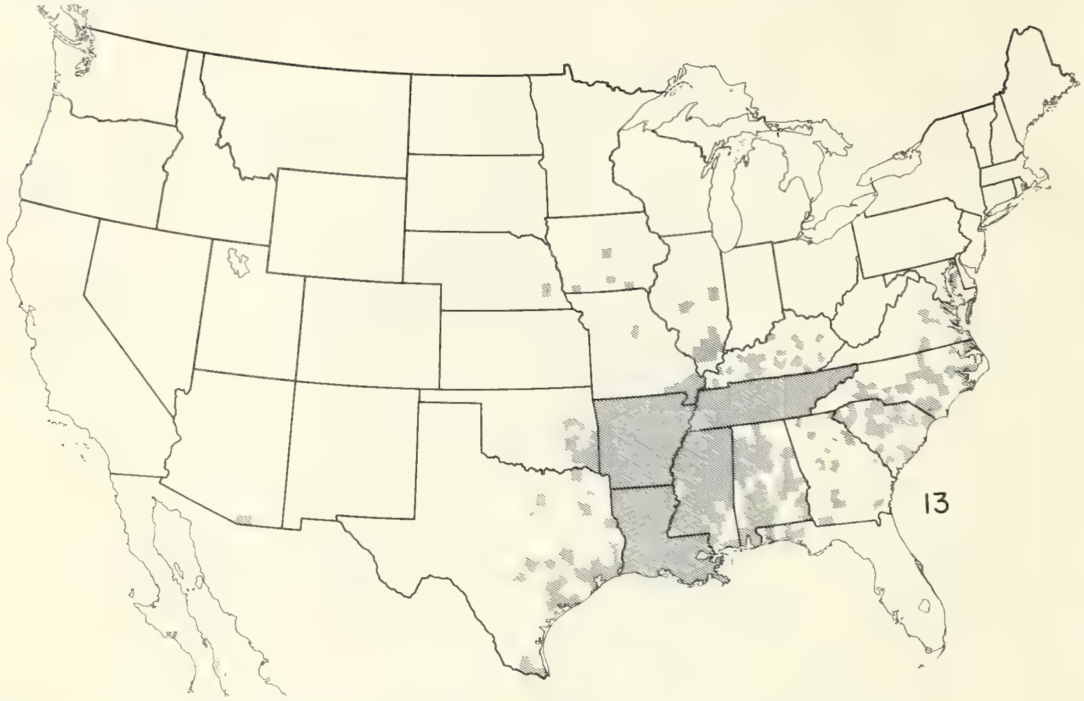


Drepanopterna femoratum (a grasshopper)

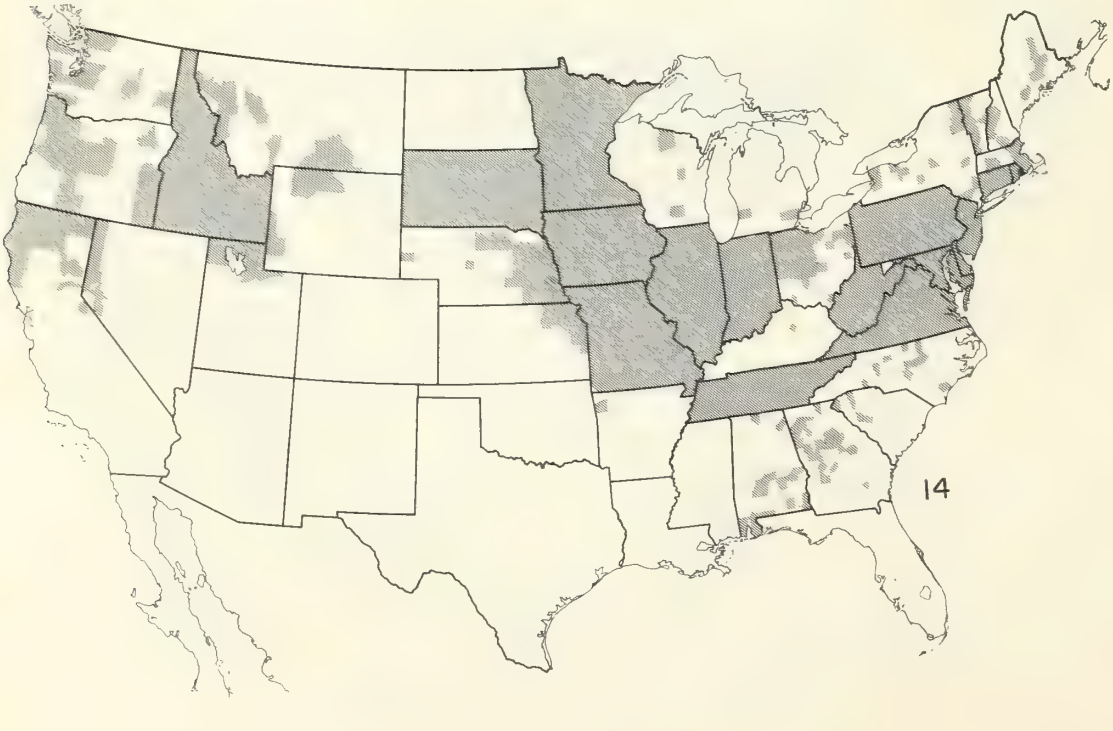


CEREAL AND FORAGE INSECTS

Euetheola rugiceps (sugarcane beetle)

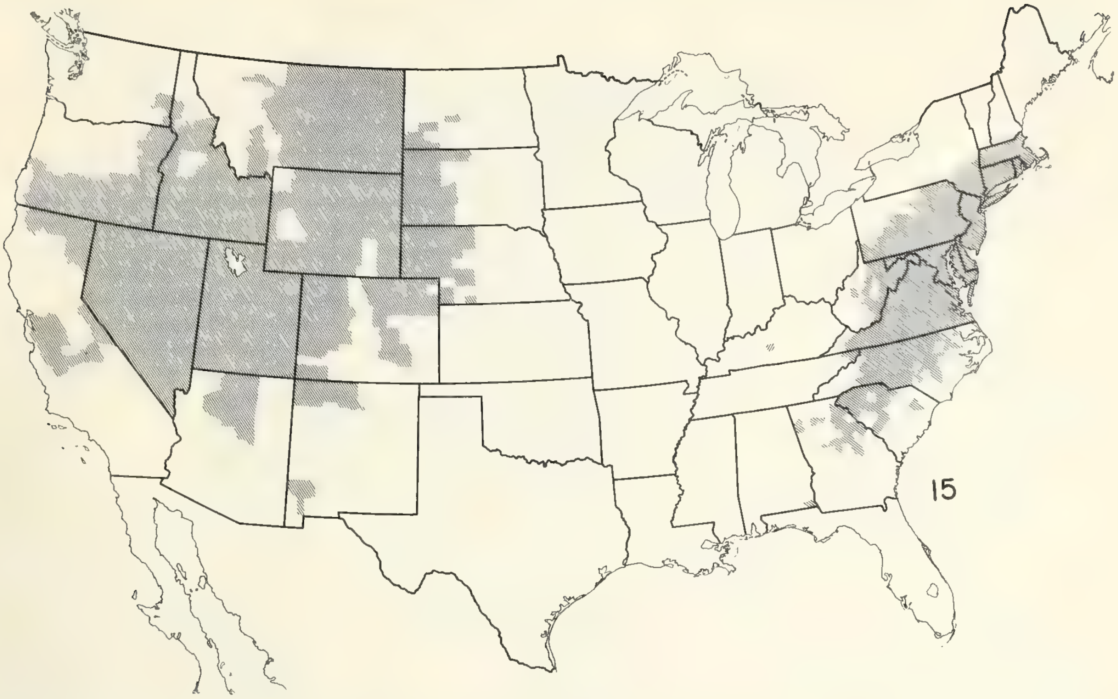


Hypera nigrirostris (lesser clover leaf weevil)

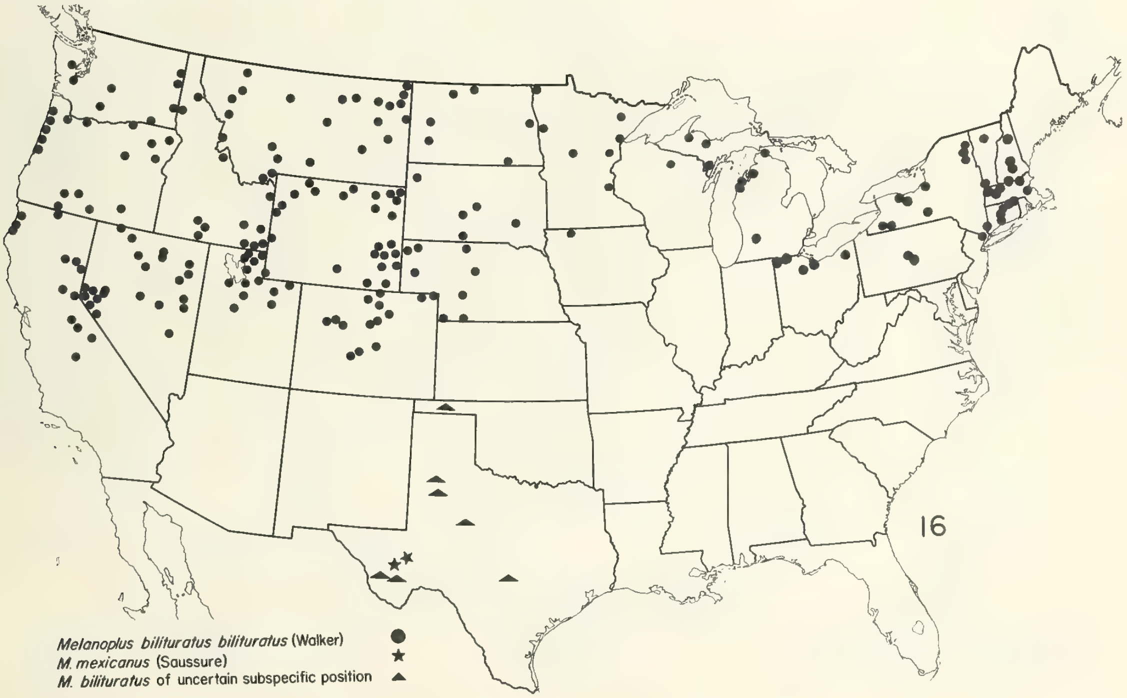


CEREAL AND FORAGE INSECTS

Hypera postica (alfalfa weevil)

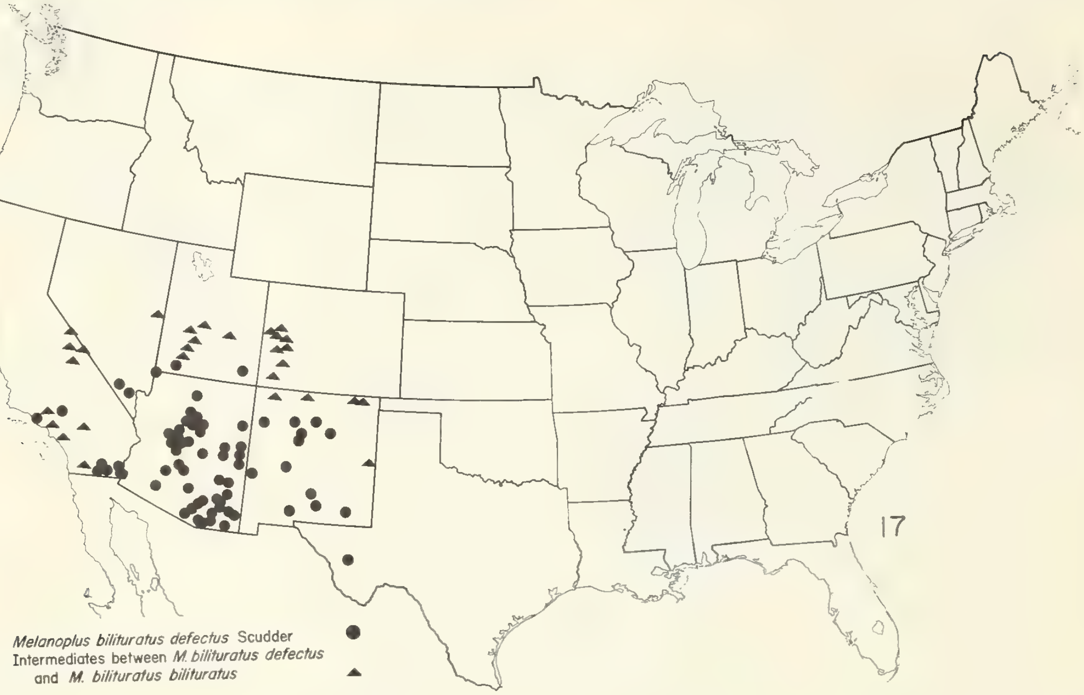


Melanoplus bilituratus bilituratus (migratory grasshopper)


16
Melanoplus bilituratus bilituratus (Walker) ●
M. mexicanus (Saussure) ★
M. bilituratus of uncertain subspecific position ▲

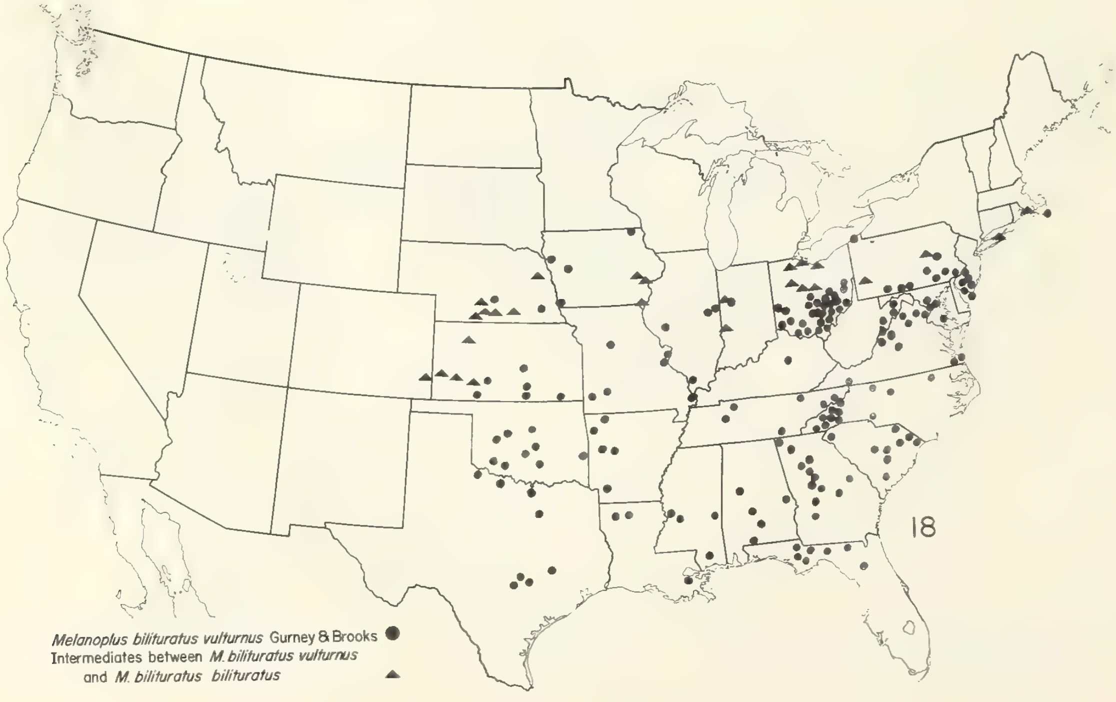
CEREAL AND FORAGE INSECTS

Melanoplus bilituratus defectus (a grasshopper)


Melanoplus bilituratus defectus Scudder ●
Intermediates between M. bilituratus defectus
and M. bilituratus bilituratus ▲

17

Melanoplus bilituratus vulturnus (a grasshopper)


Melanoplus bilituratus vulturnus Gurney & Brooks ●
Intermediates between M. bilituratus vulturnus
and M. bilituratus bilituratus ▲

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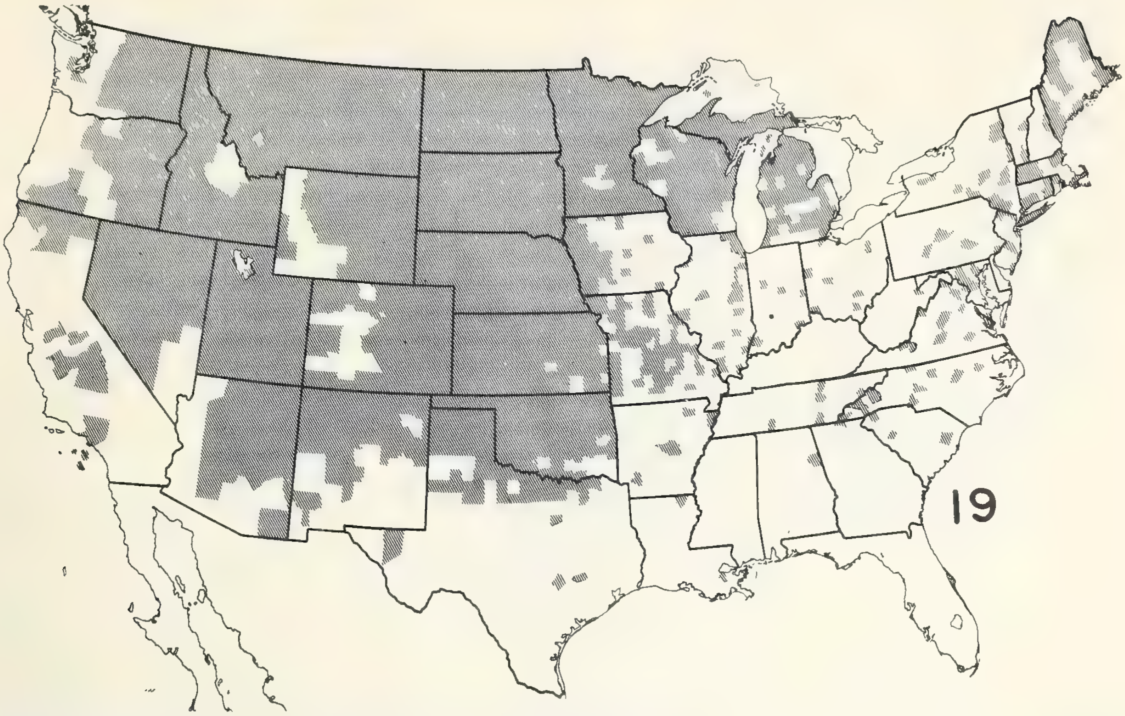
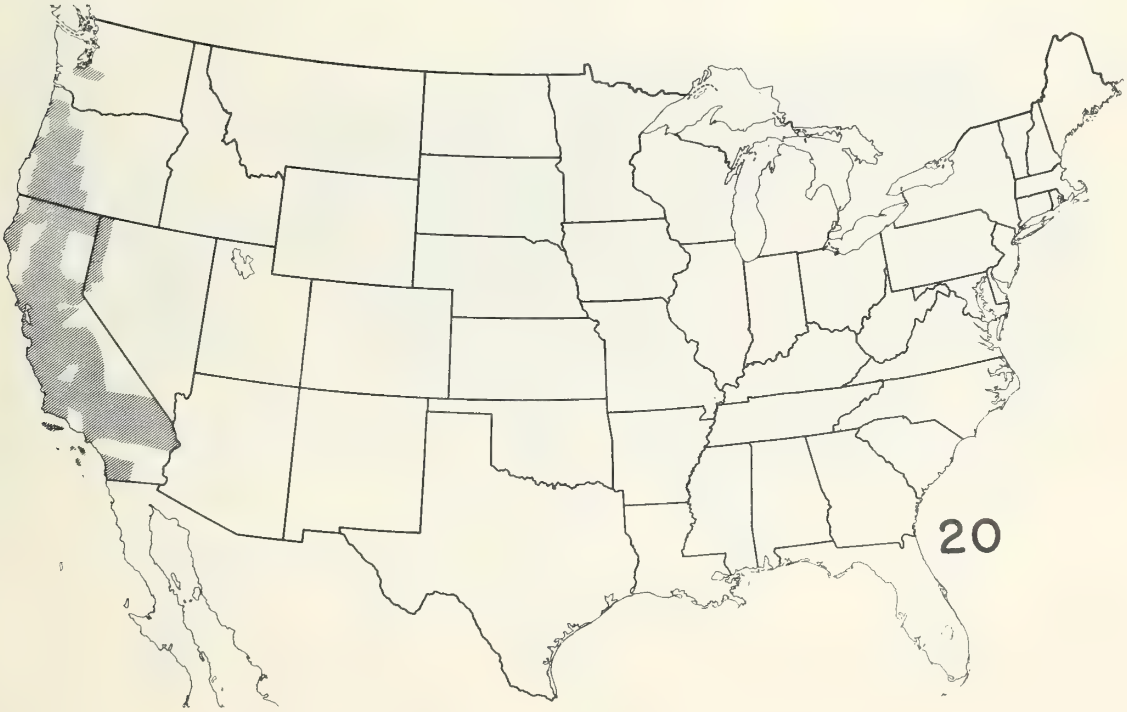
CEREAL AND FORAGE INSECTS

Melanoplus bivittatus (two-striped grasshopper)

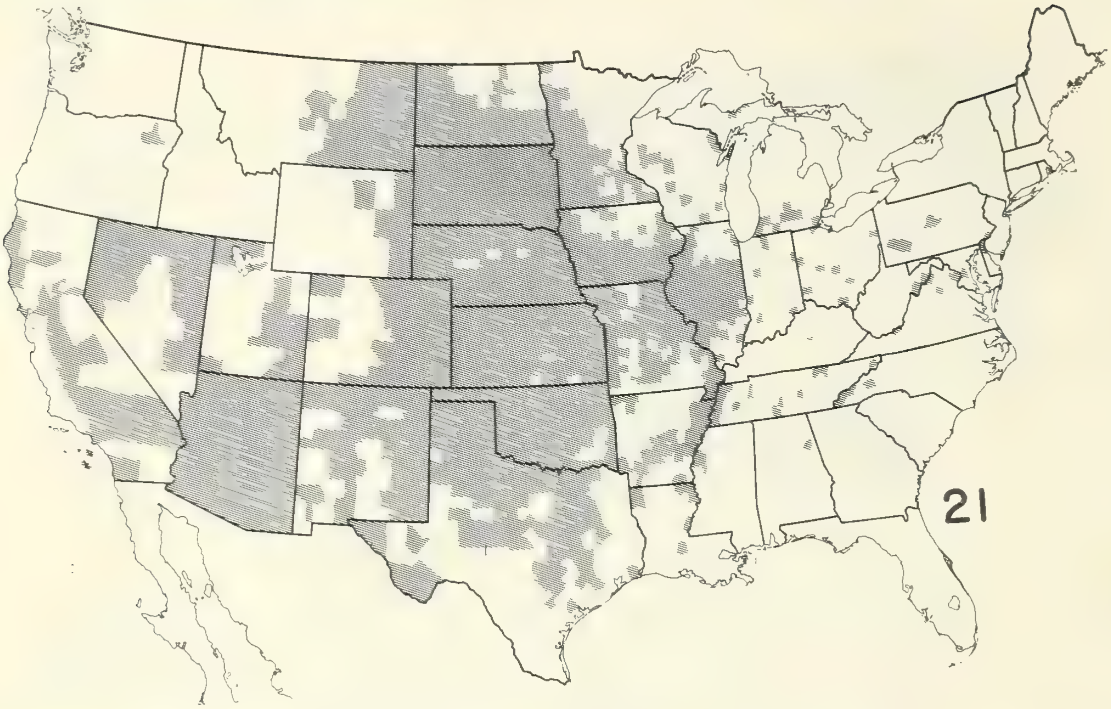


Melanoplus devastator (devastating grasshopper)

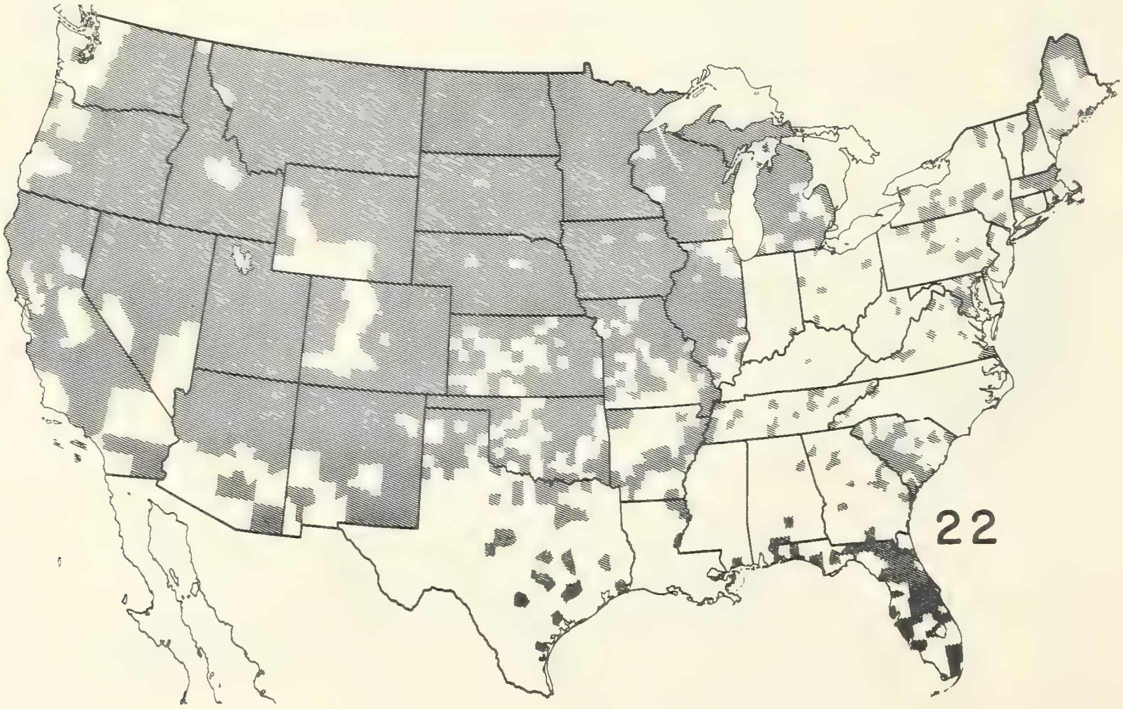


CEREAL AND FORAGE INSECTS

Melanoplus differentialis (differential grasshopper)

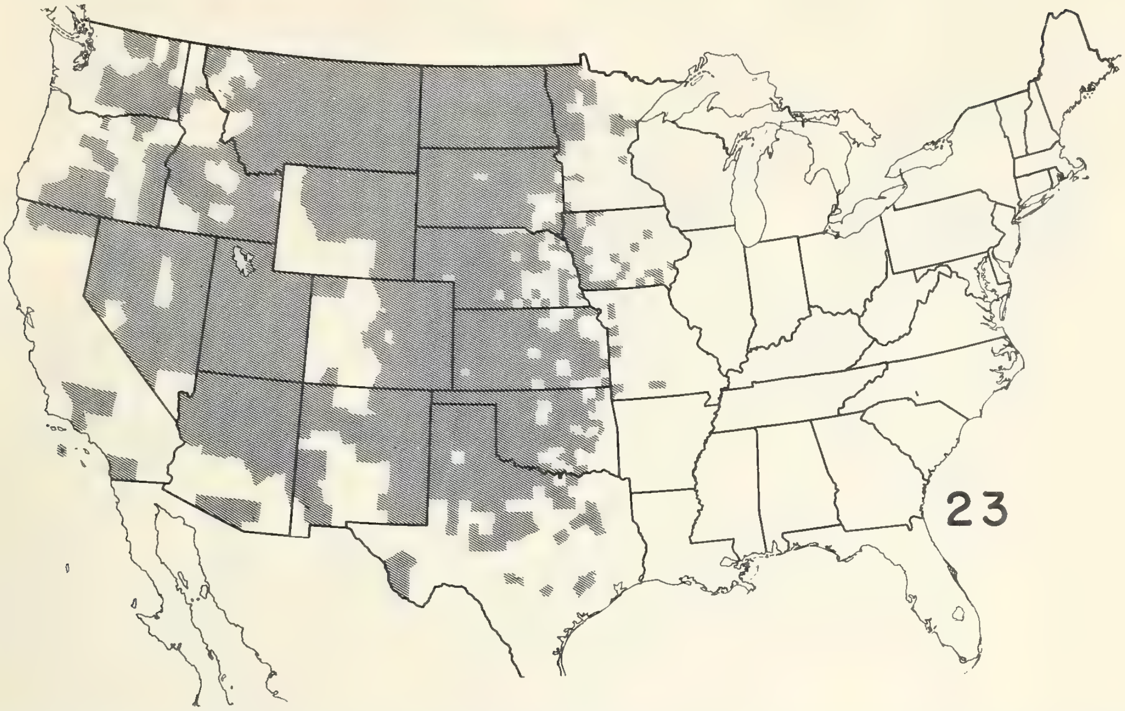


Melanoplus femur-rubrum (red-legged grasshopper)



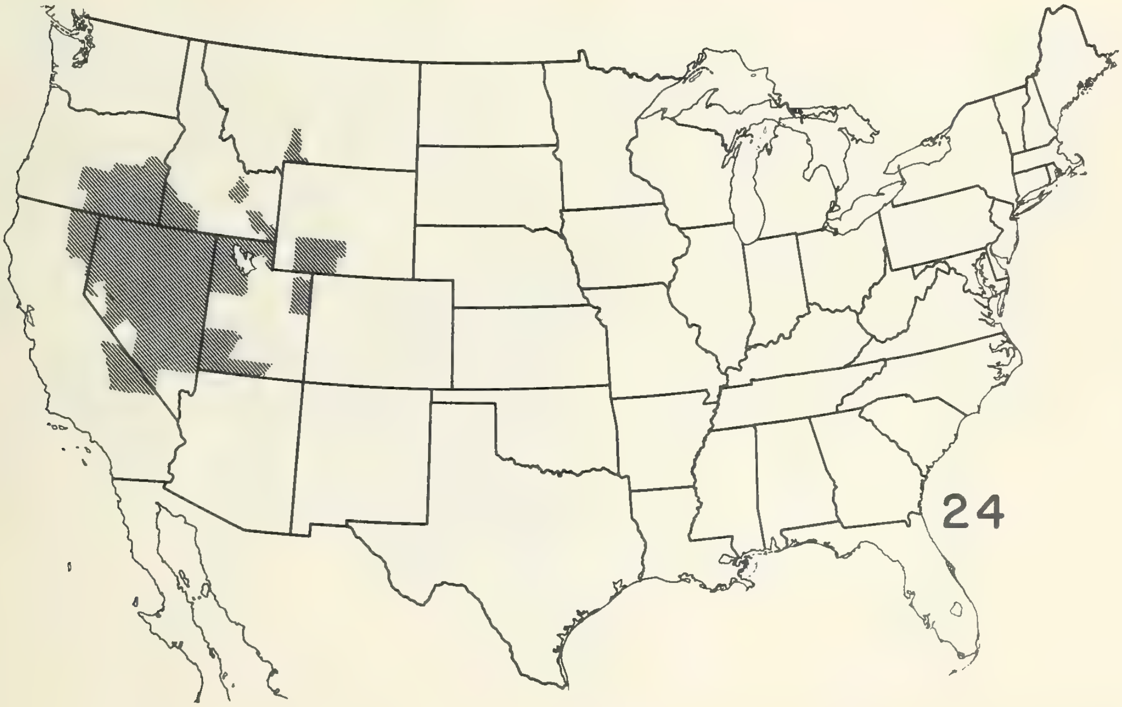
CEREAL AND FORAGE INSECTS

Melanoplus packardii (Packard grasshopper)



23

Melanoplus rugglesi (Nevada sage grasshopper)



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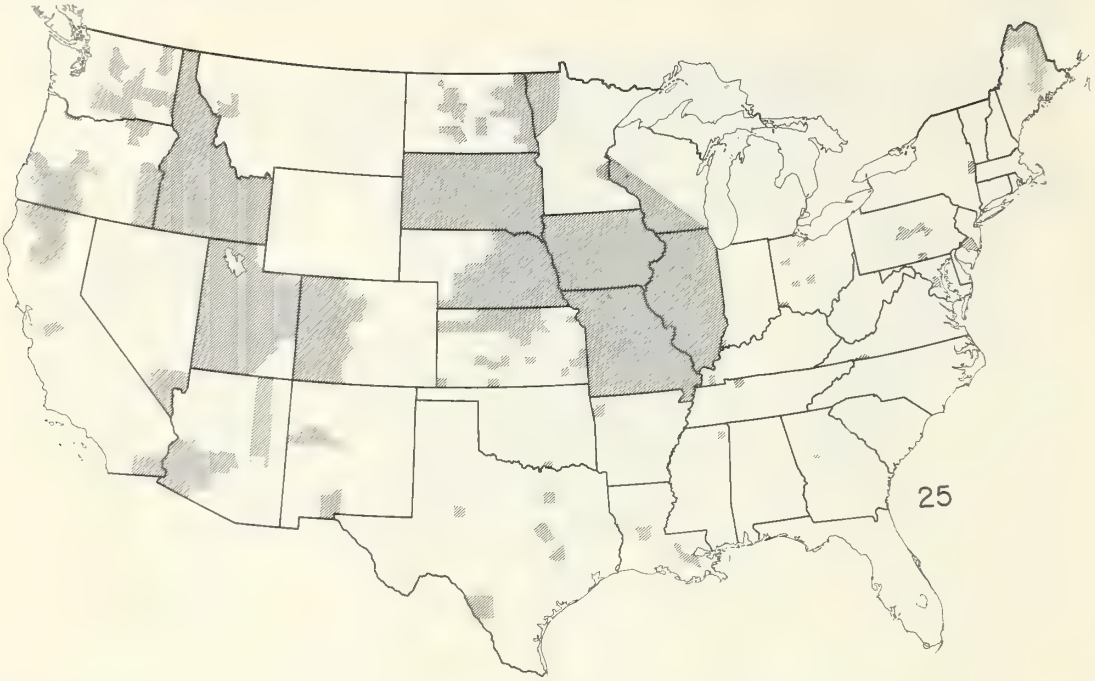
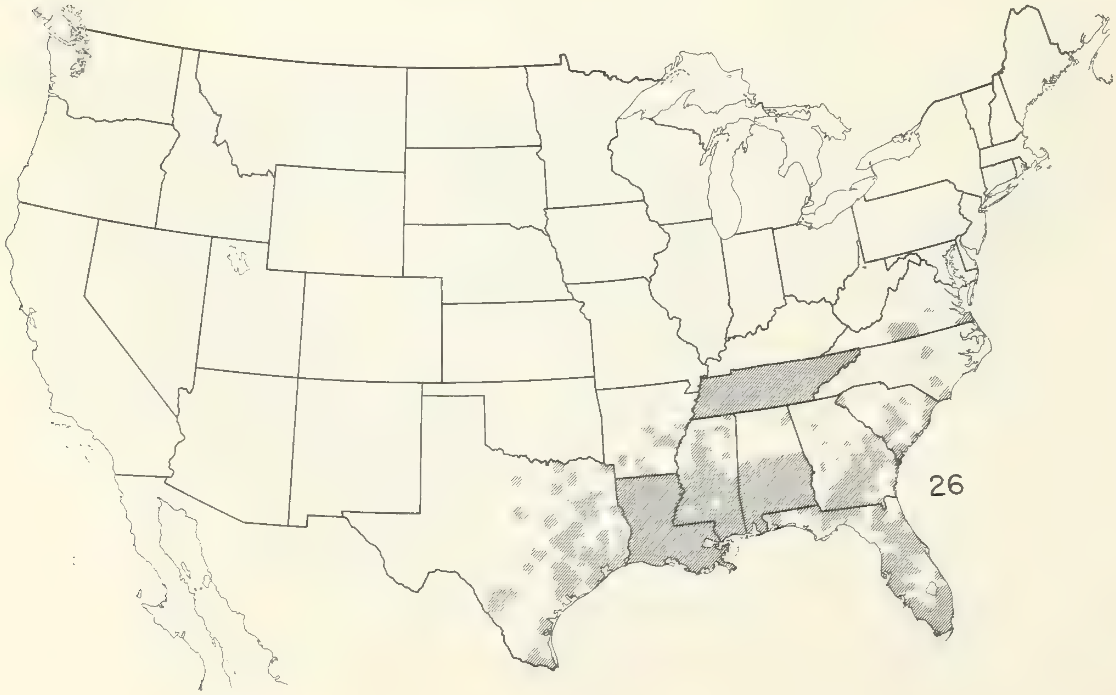
CEREAL AND FORAGE INSECTS

Therioaphis riehmi (sweetclover aphid)*



25

Nezara viridula (southern green stink bug)



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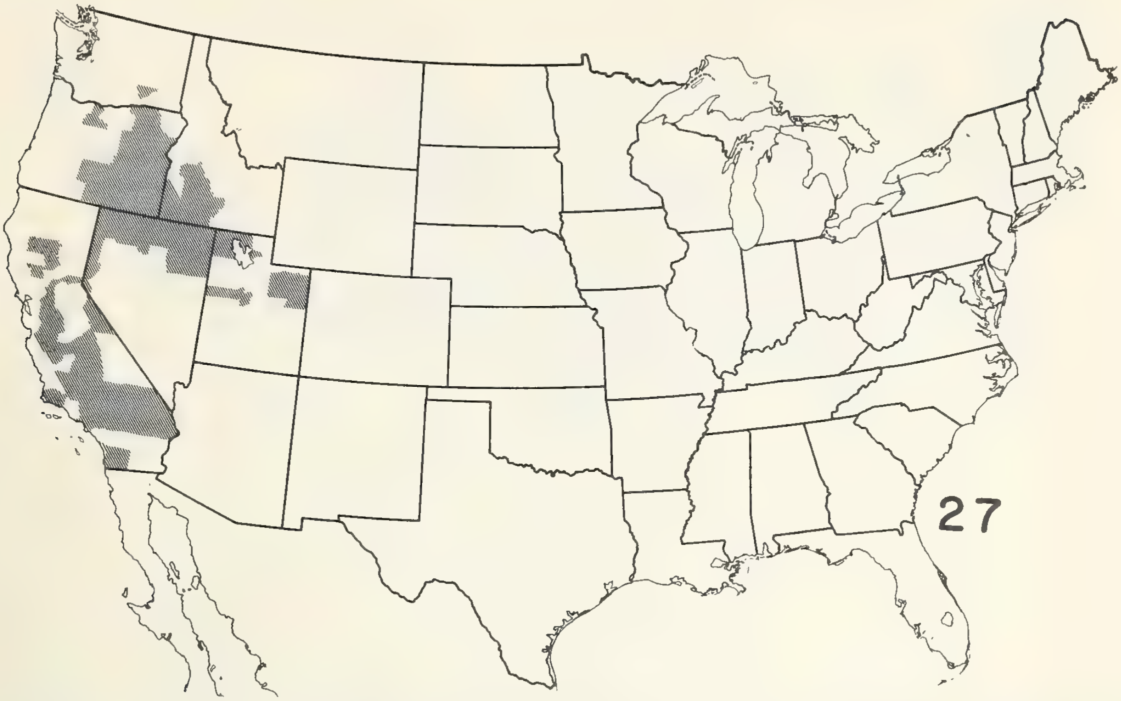
*Formerly known as *Myzocallidium riehmi*

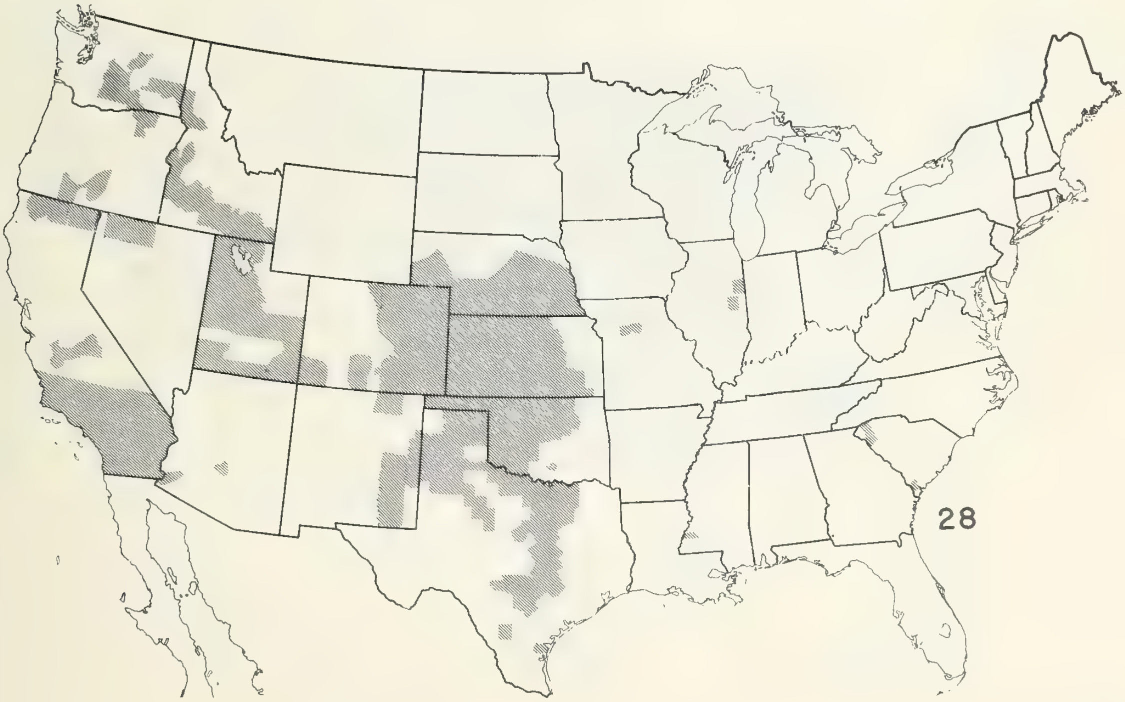
CEREAL AND FORAGE INSECTS

Oedaleonotus enigma (a grasshopper)



27

Petrobia latens (brown wheat mite)



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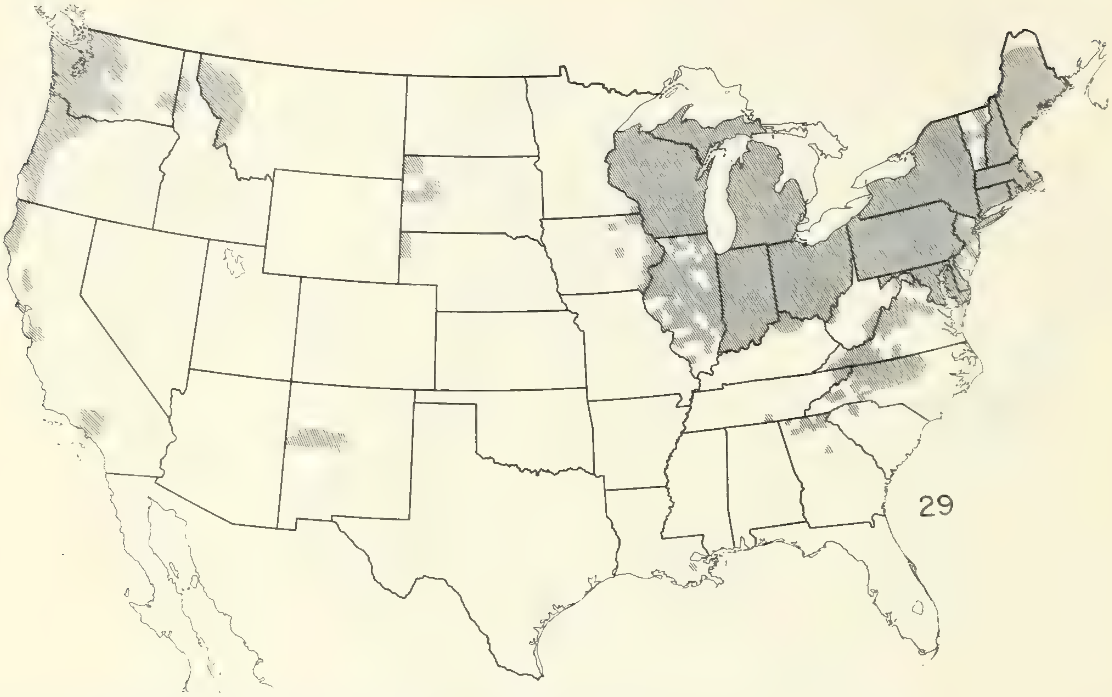
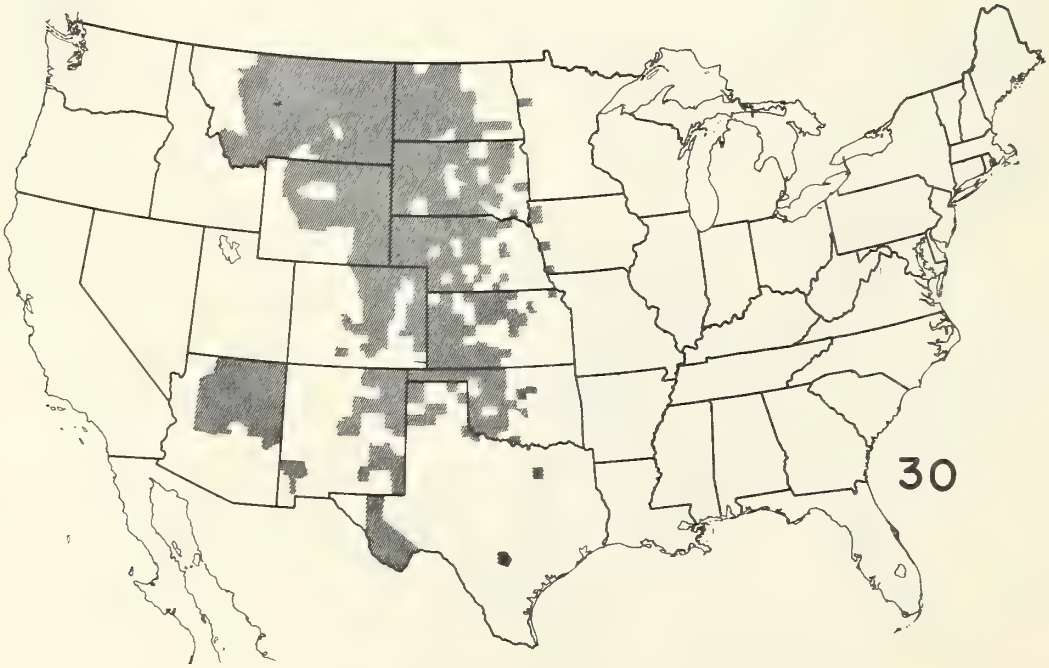
CEREAL AND FORAGE INSECTS

Philaenus leucophthalmus (meadow spittlebug)

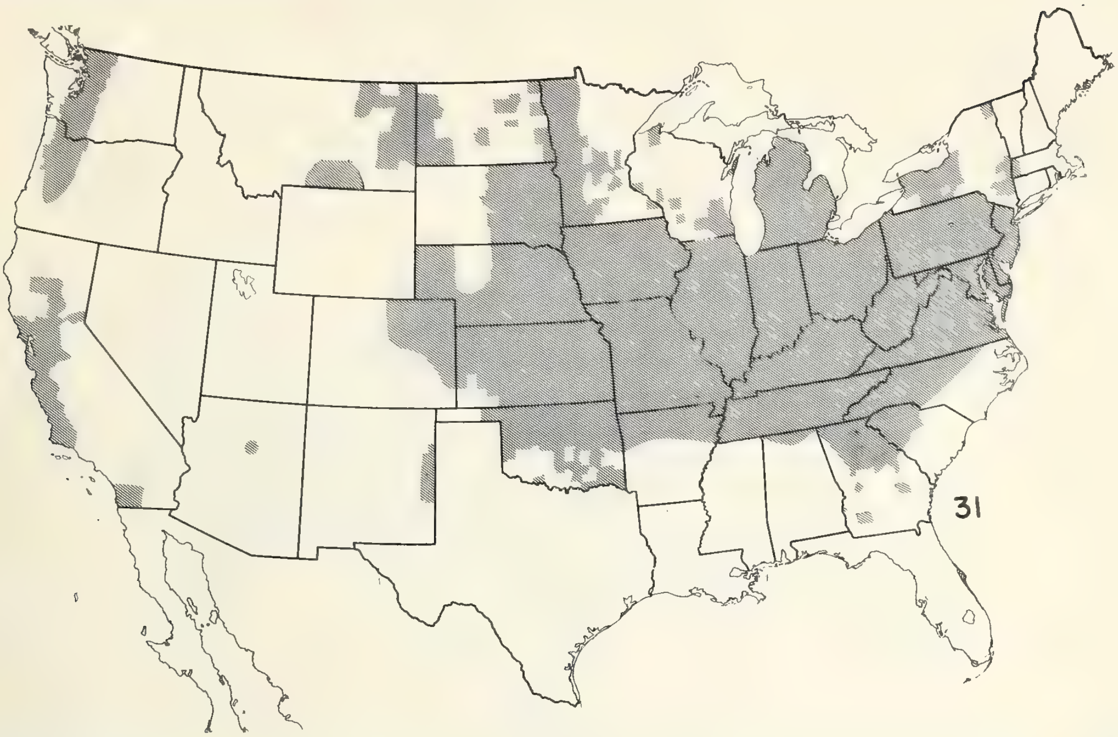


Phlibostroma quadrimaculatum (a grasshopper)



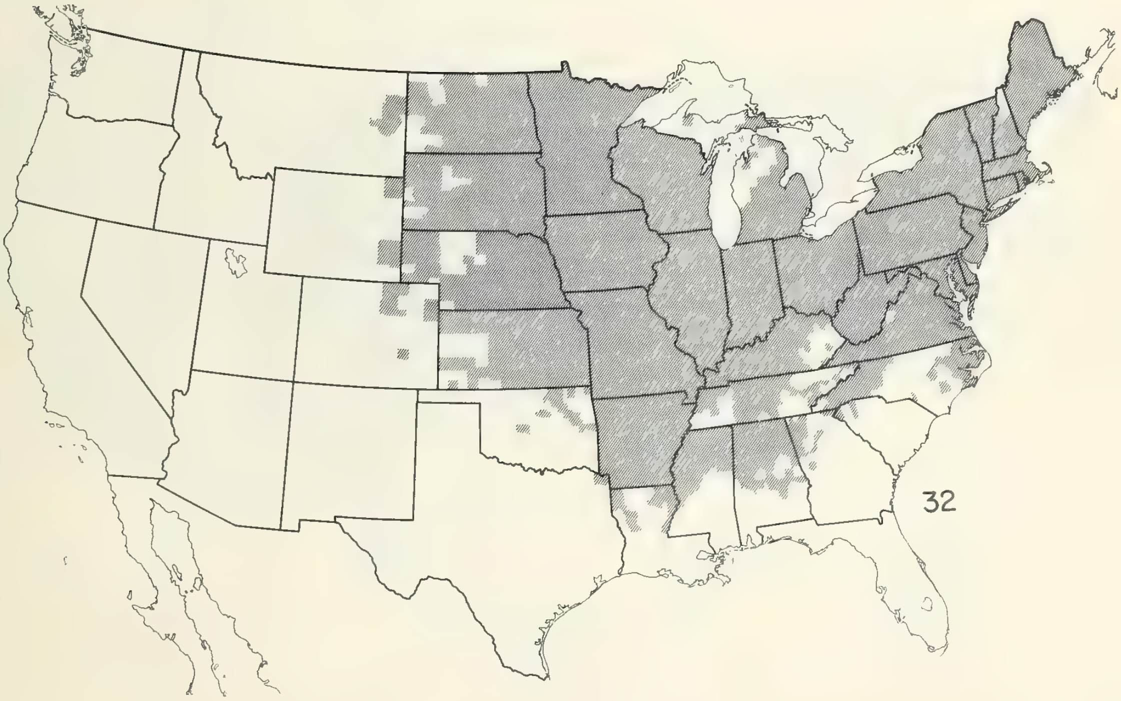
CEREAL AND FORAGE INSECTS

Phytophaga destructor (hessian fly)



31

Pyrausta nubilalis (European corn borer)



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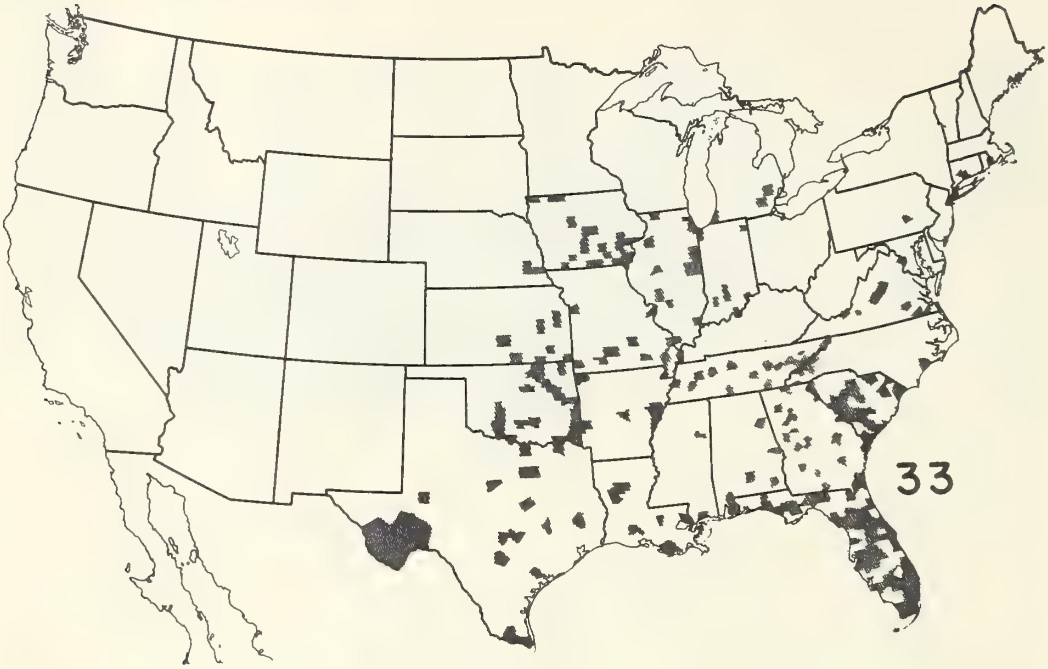
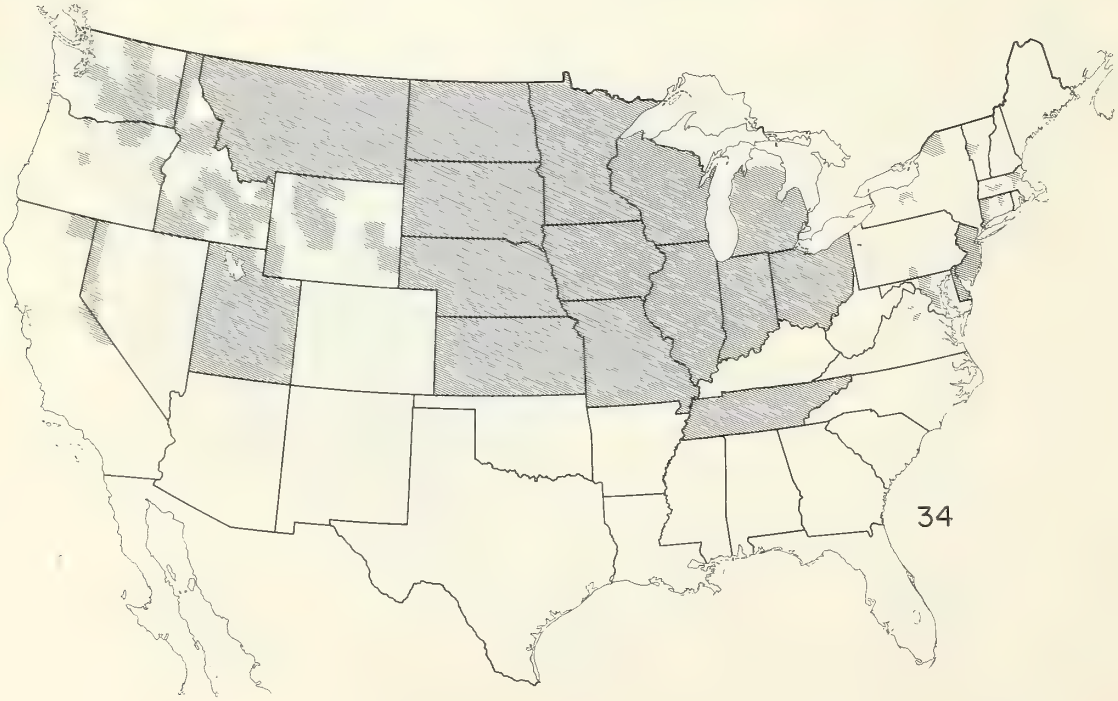
CEREAL AND FORAGE INSECTS

Schistocerca americana (American grasshopper)

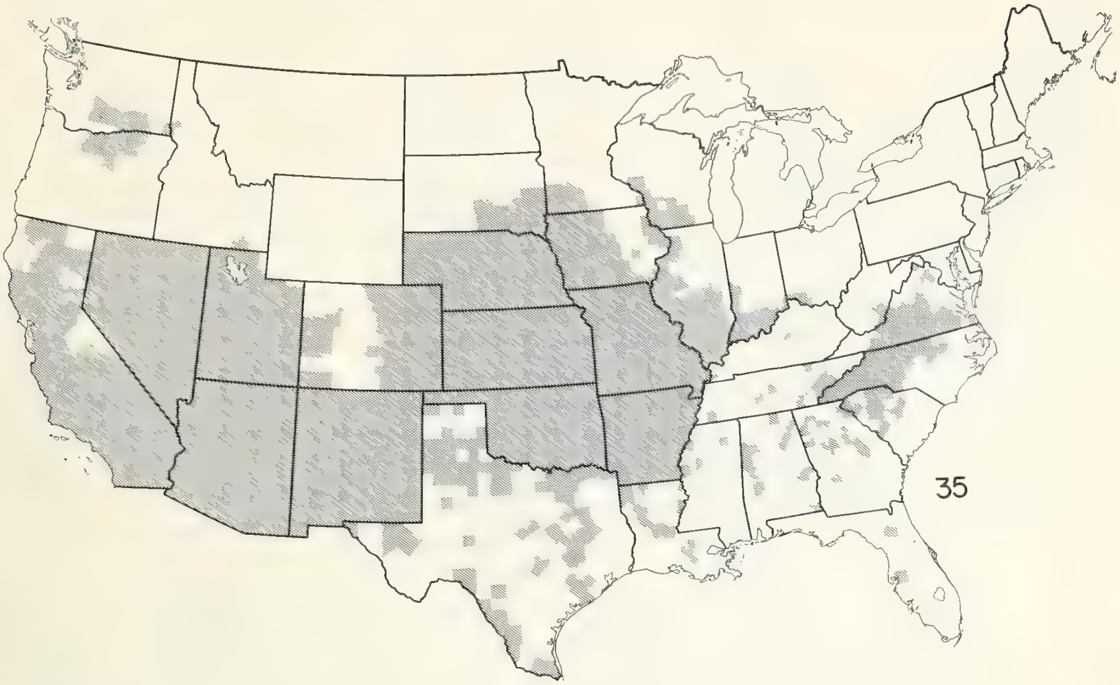


Sitona cylindricollis (sweetclover weevil)



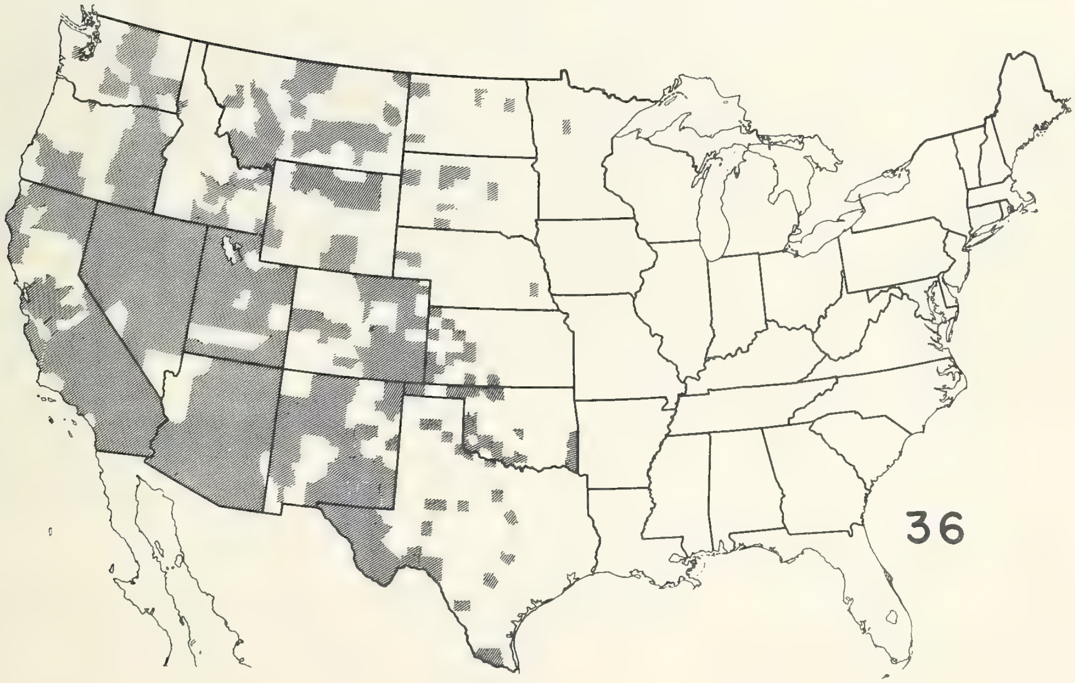
CEREAL AND FORAGE INSECTS

Therioaphis maculata (spotted alfalfa aphid)



35

Trimerotropis pallidipennis (a grasshopper)



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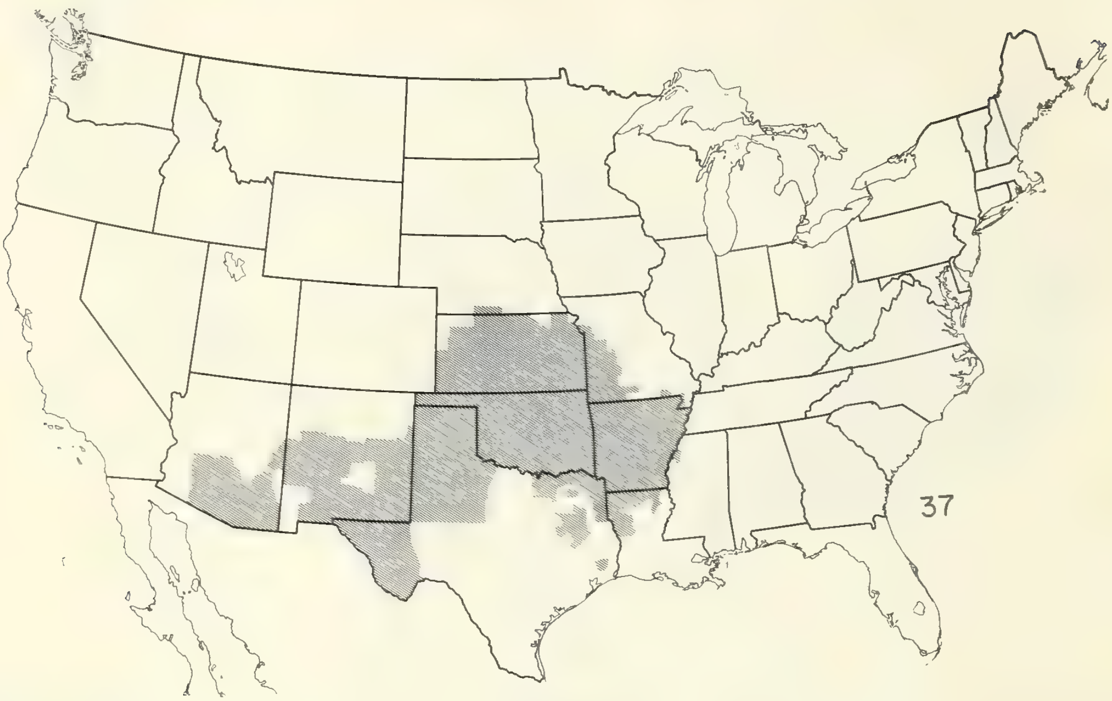
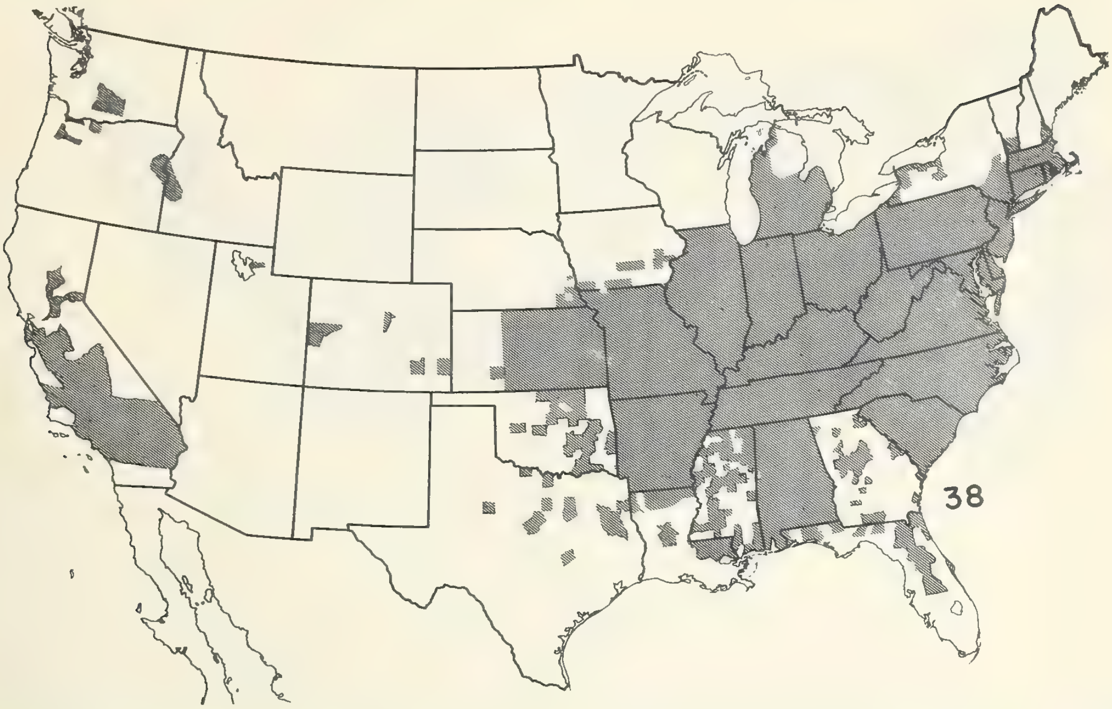
CEREAL AND FORAGE INSECTS

Zeadiatraea grandiosella (southwestern corn borer)



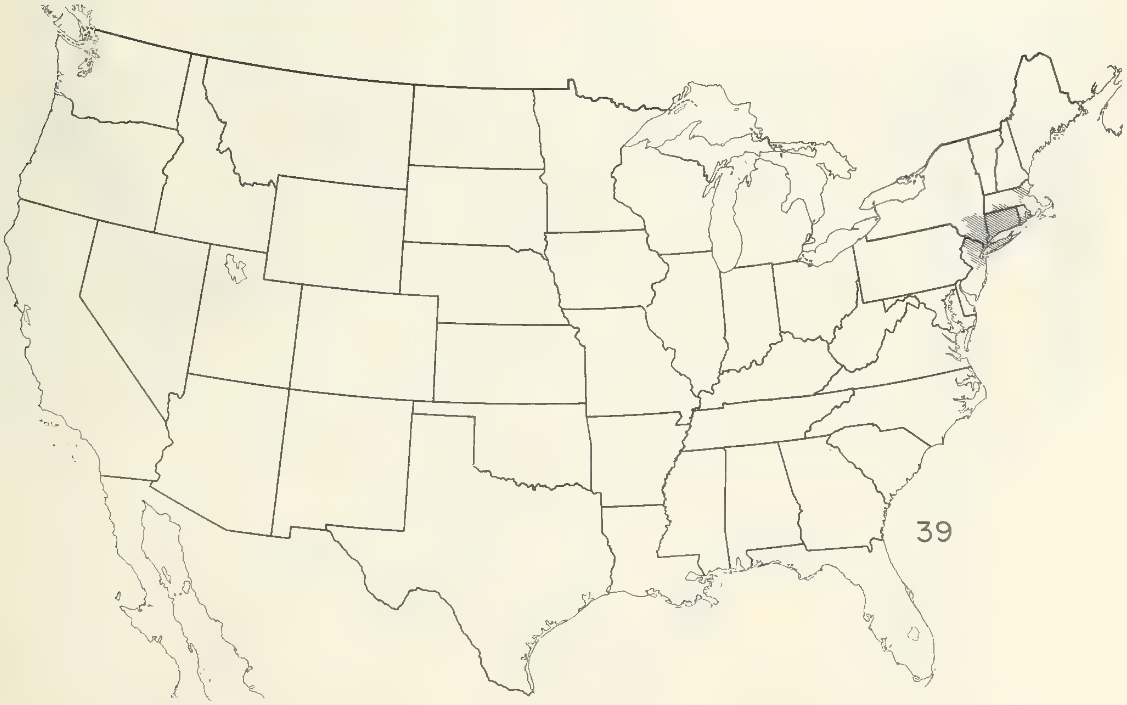
FRUIT INSECTS

Grapholitha molesta (oriental fruit moth)



38

Hoplocampa testudinea (European apple sawfly)



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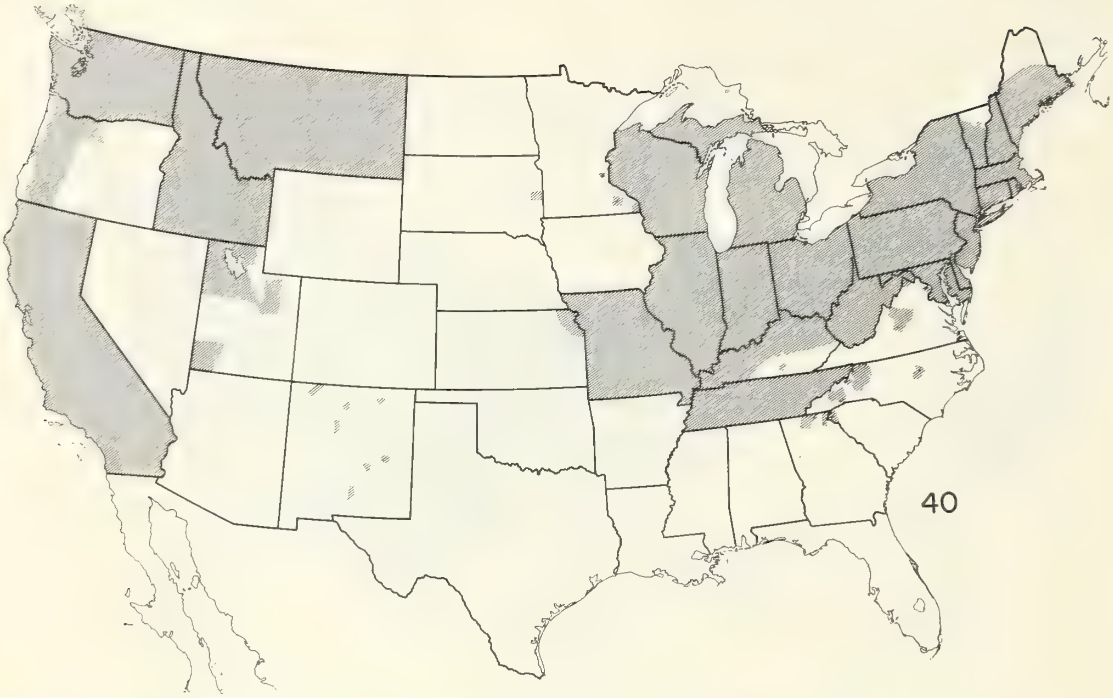
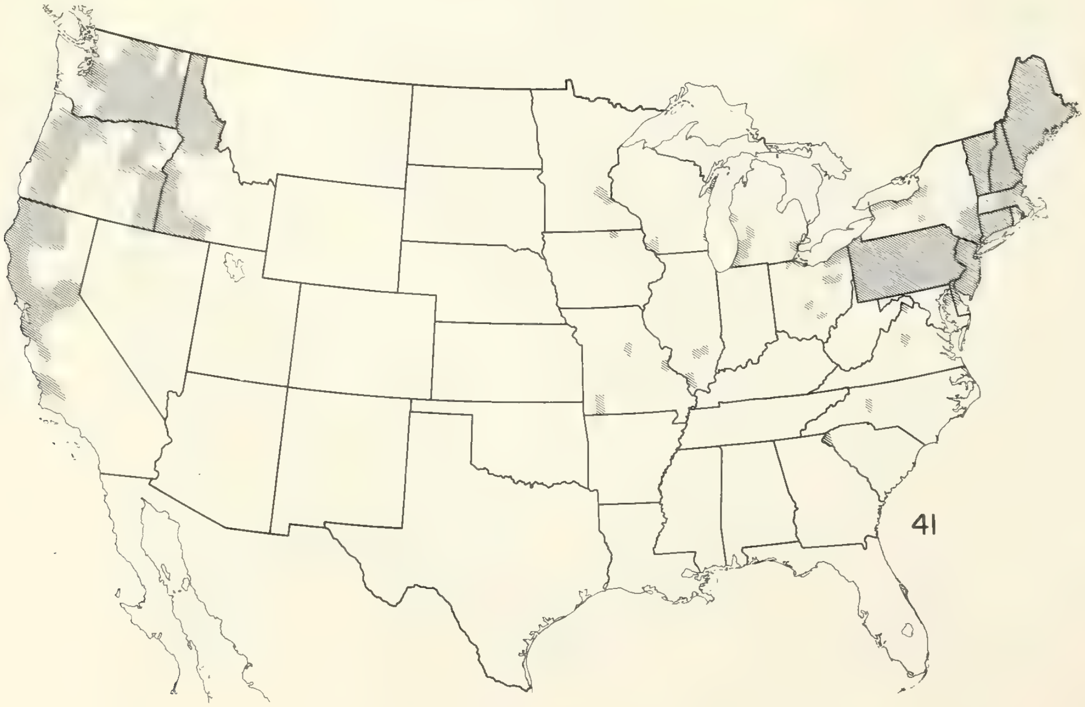
FRUIT INSECTS

Panonychus ulmi (European red mite)



40

Psylla pyricola (pear psylla)



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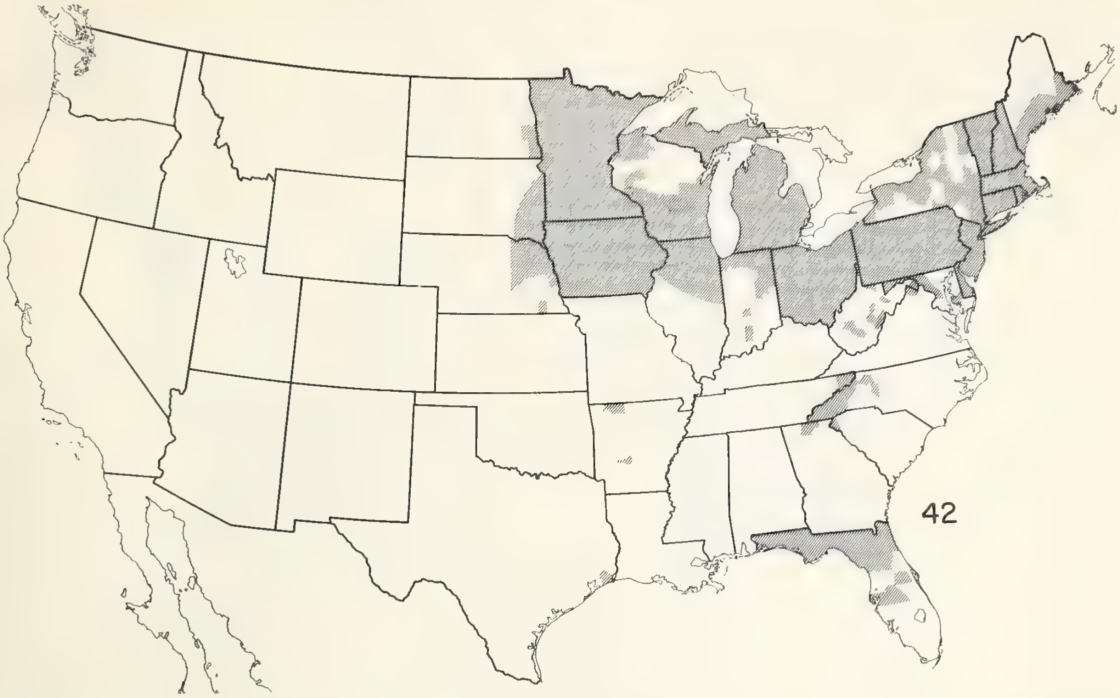
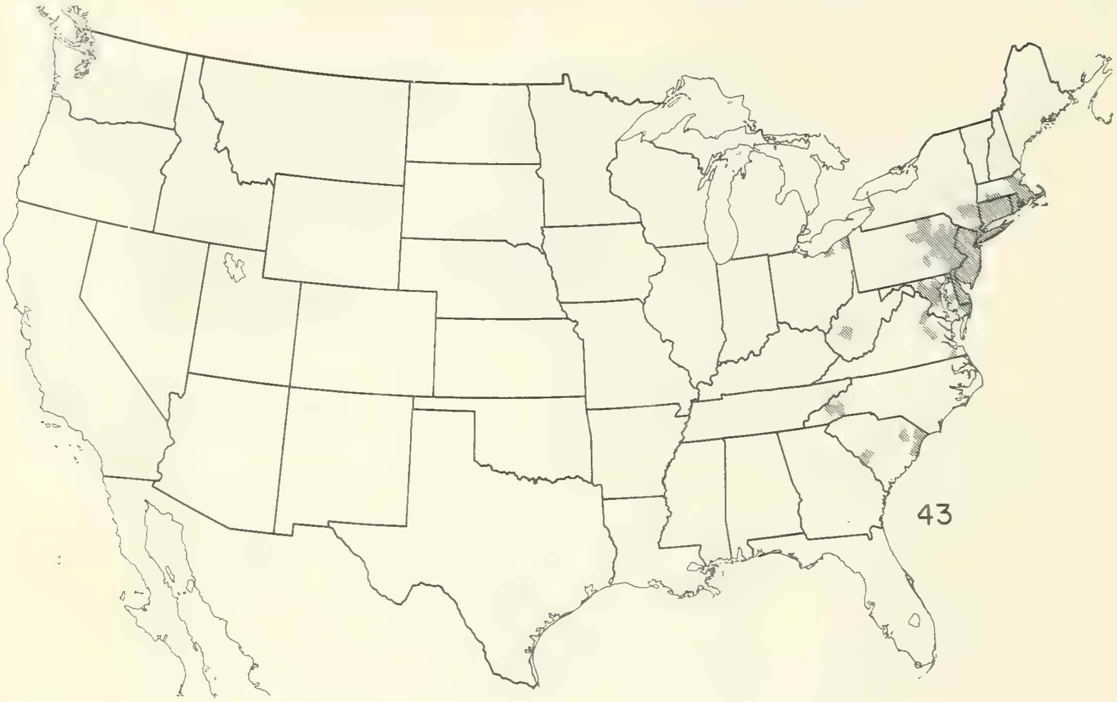
FRUIT INSECTS

Rhagoletis pomonella (apple maggot)

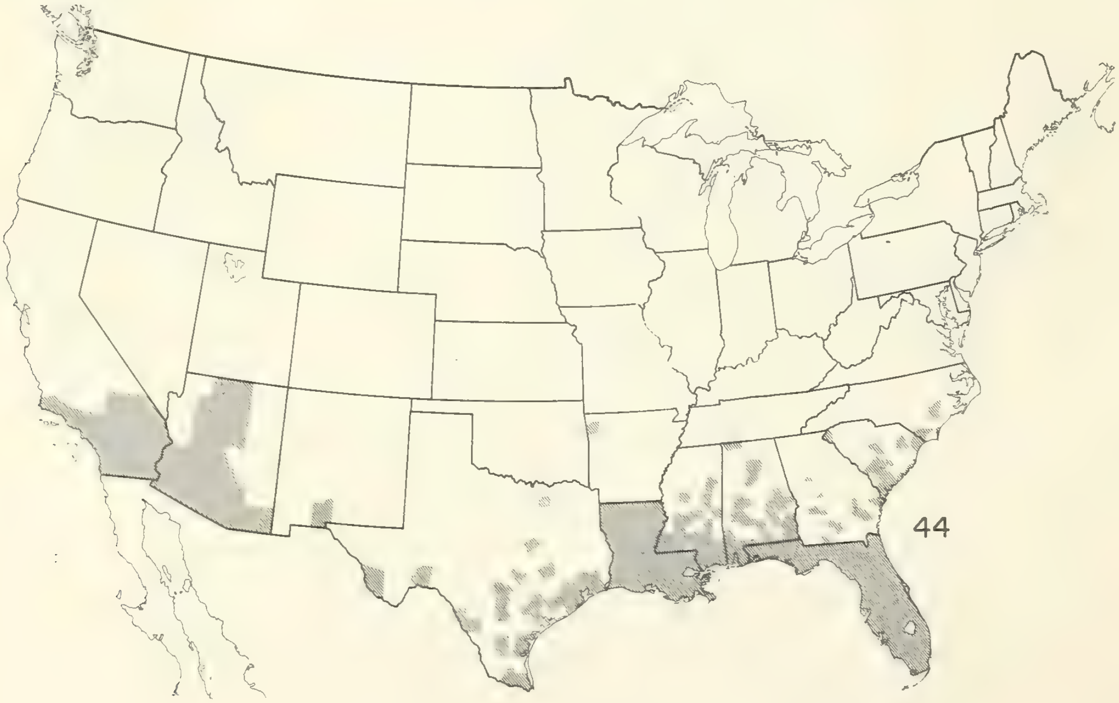


TRUCK CROP INSECTS

Autoserica castanea (Asiatic garden beetle)

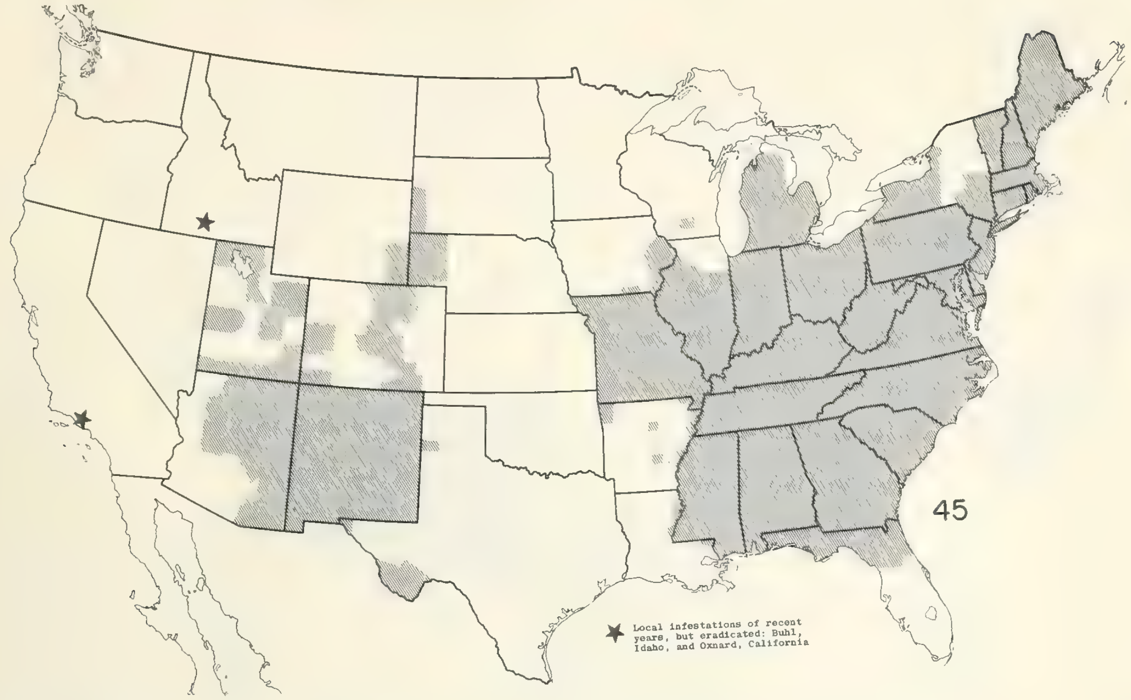


Diabrotica balteata (banded cucumber beetle)



TRUCK CROP INSECTS

Epilachna varivestis (Mexican bean beetle)



★ Local infestations of recent years, but eradicated: Buhl, Idaho, and Oxnard, California

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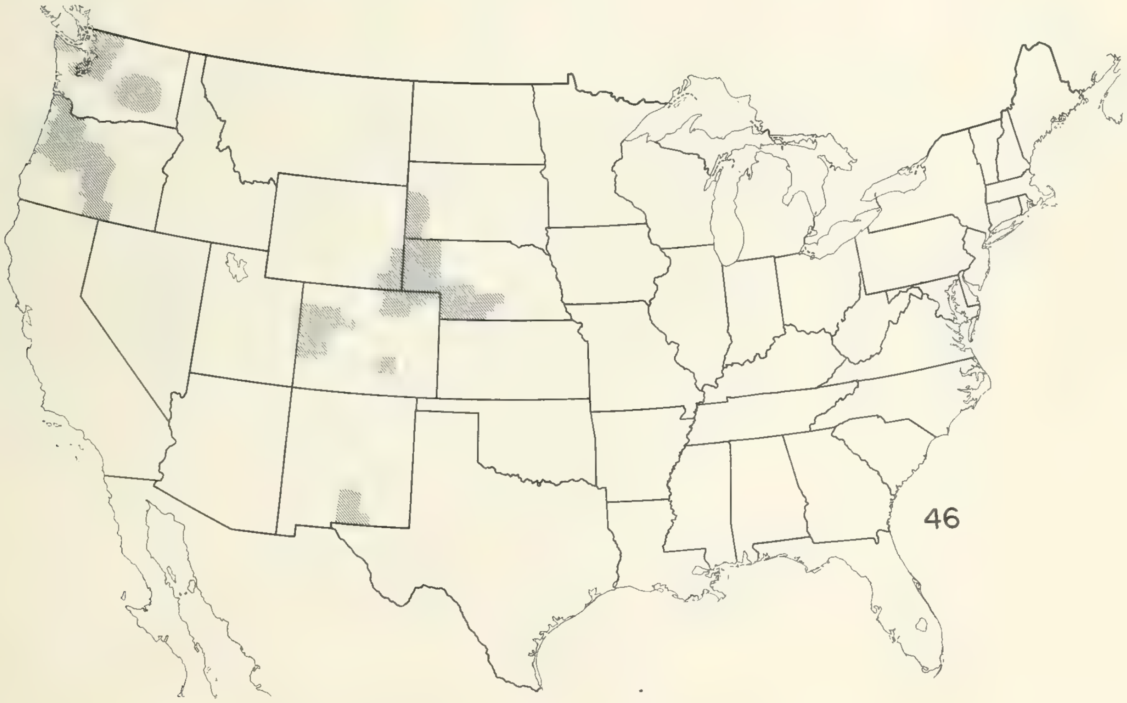
Epitrix tuberis (tuber flea beetle)



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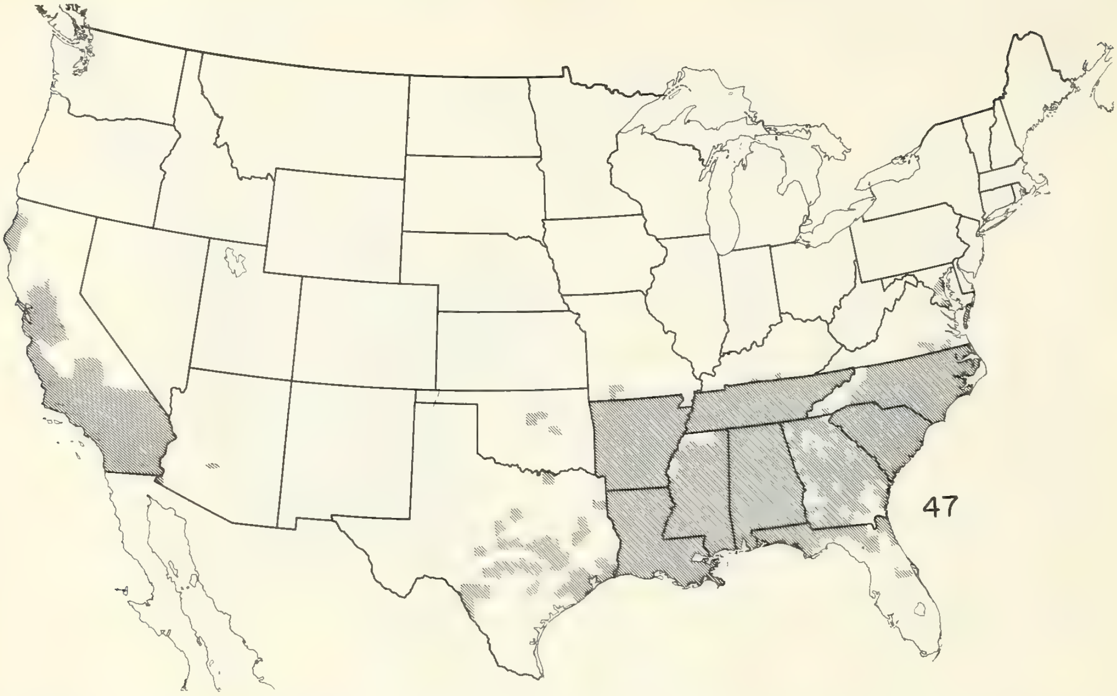
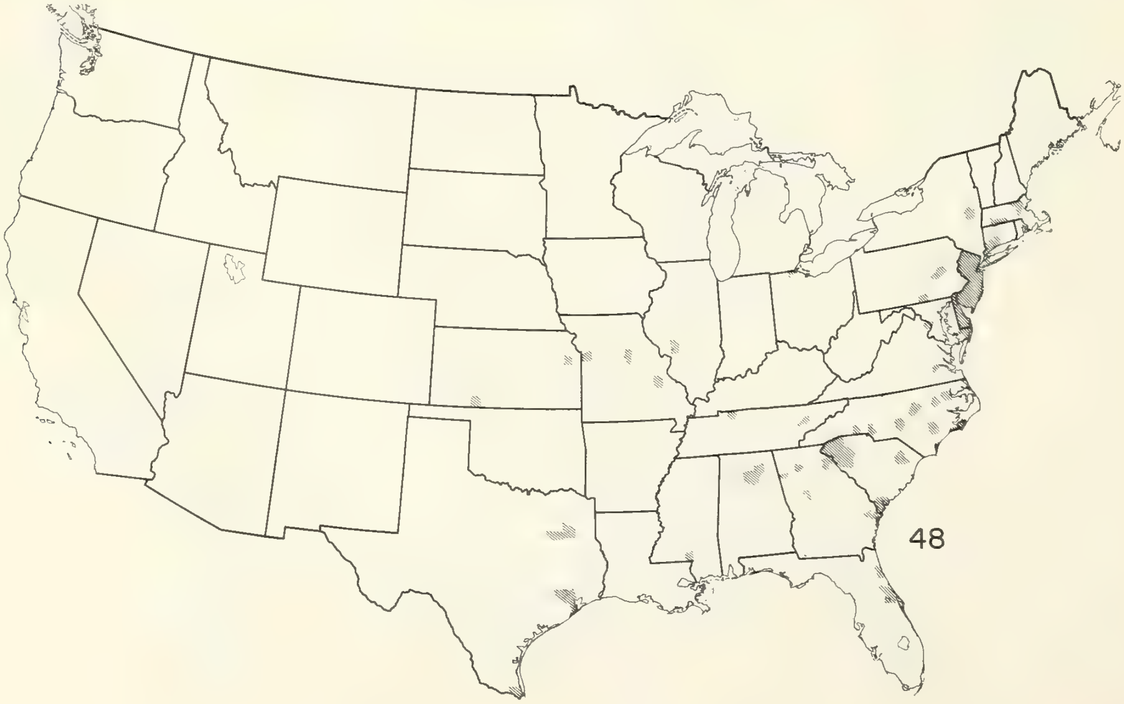
TRUCK CROP INSECTS

Listroderes costirostris obliquus (vegetable weevil)

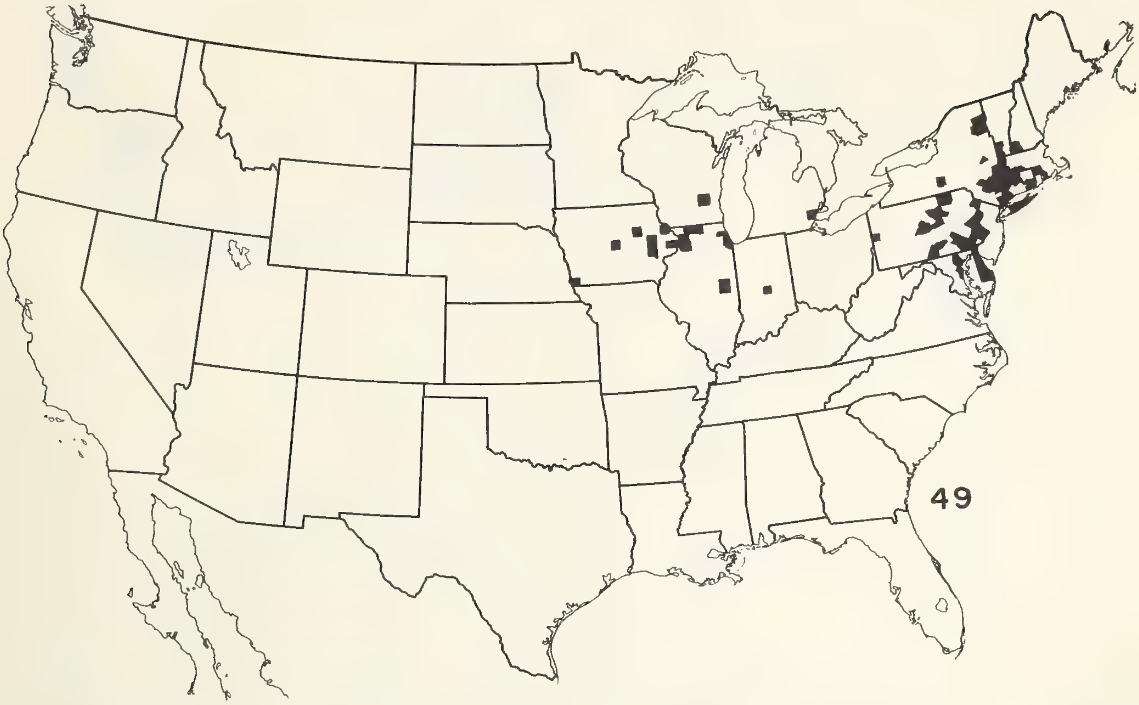


Zonosemata electa (pepper maggot)



FOREST INSECTS

Calomycterus setarius (a Japanese weevil)



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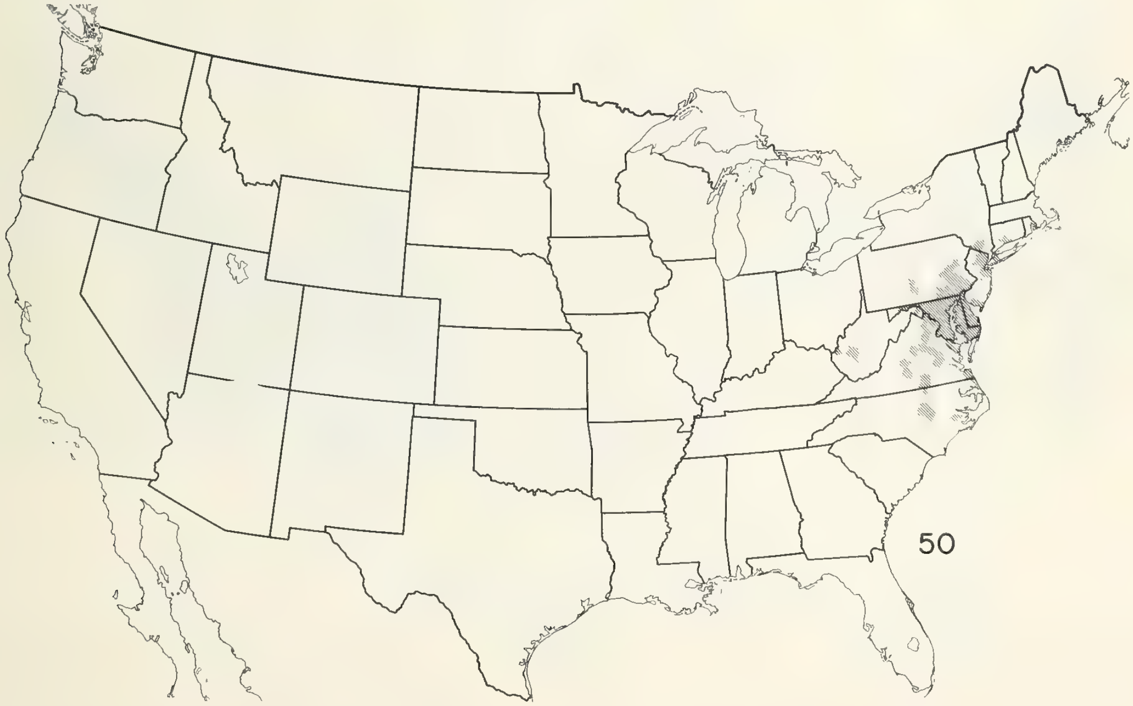
Cyrtepistomus castaneus (Asiatic oak weevil)



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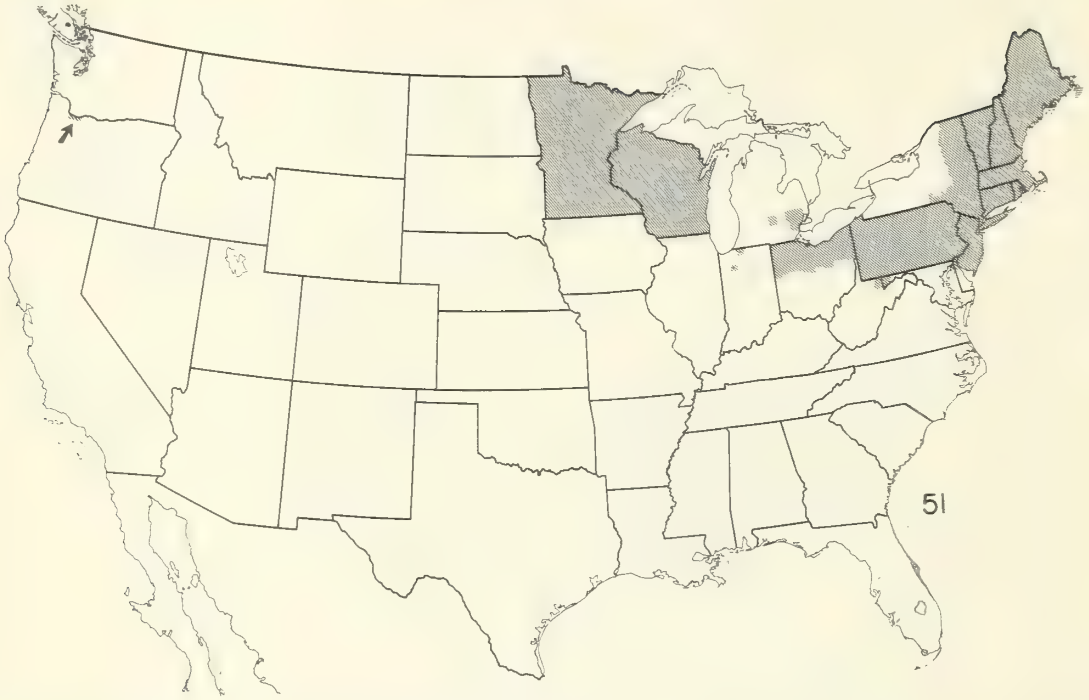
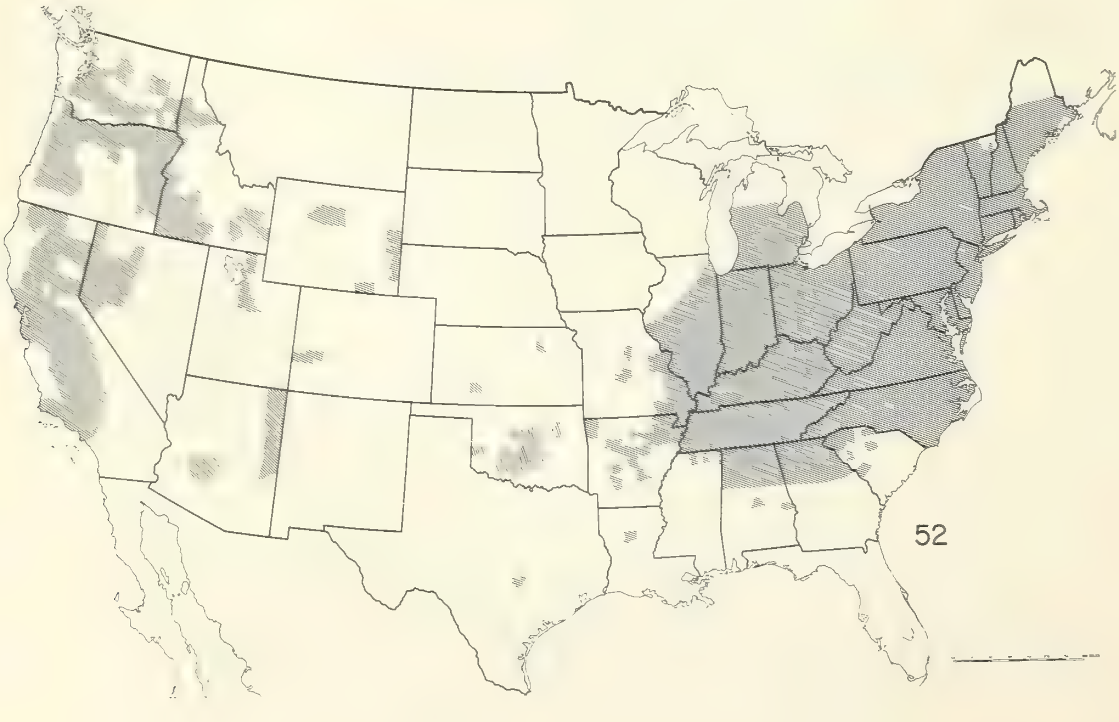
FOREST INSECTS

Fenusa pusilla (birch leaf miner)



51

Galerucella xanthomelaena (elm leaf beetle)



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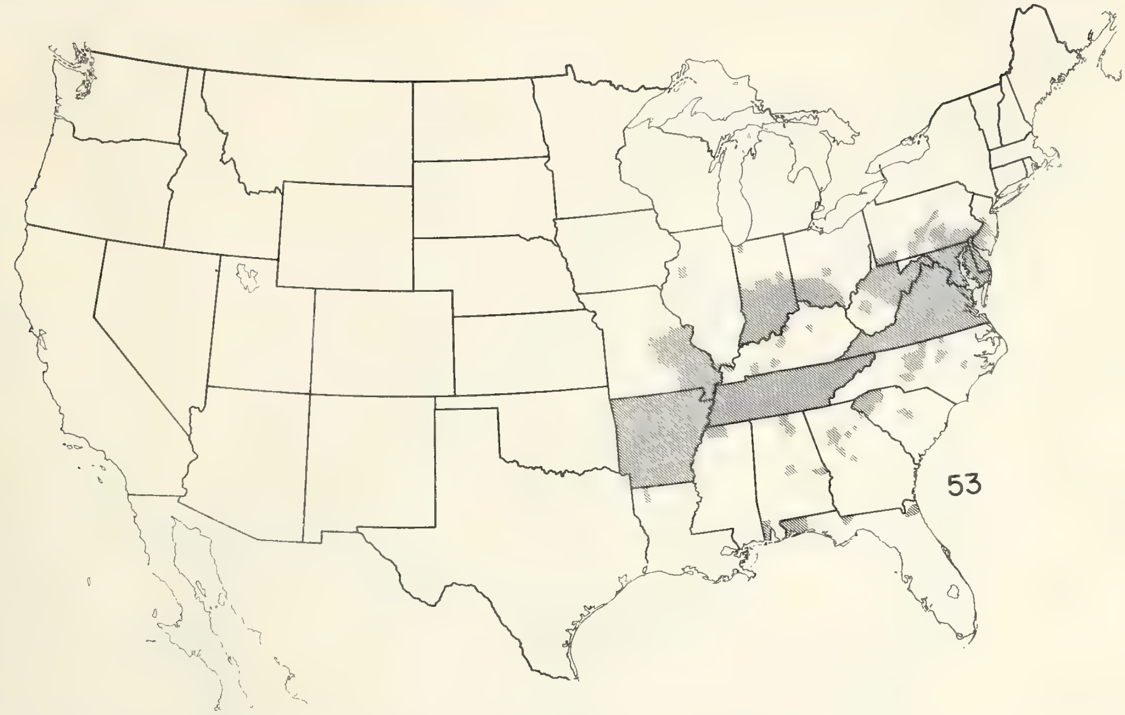
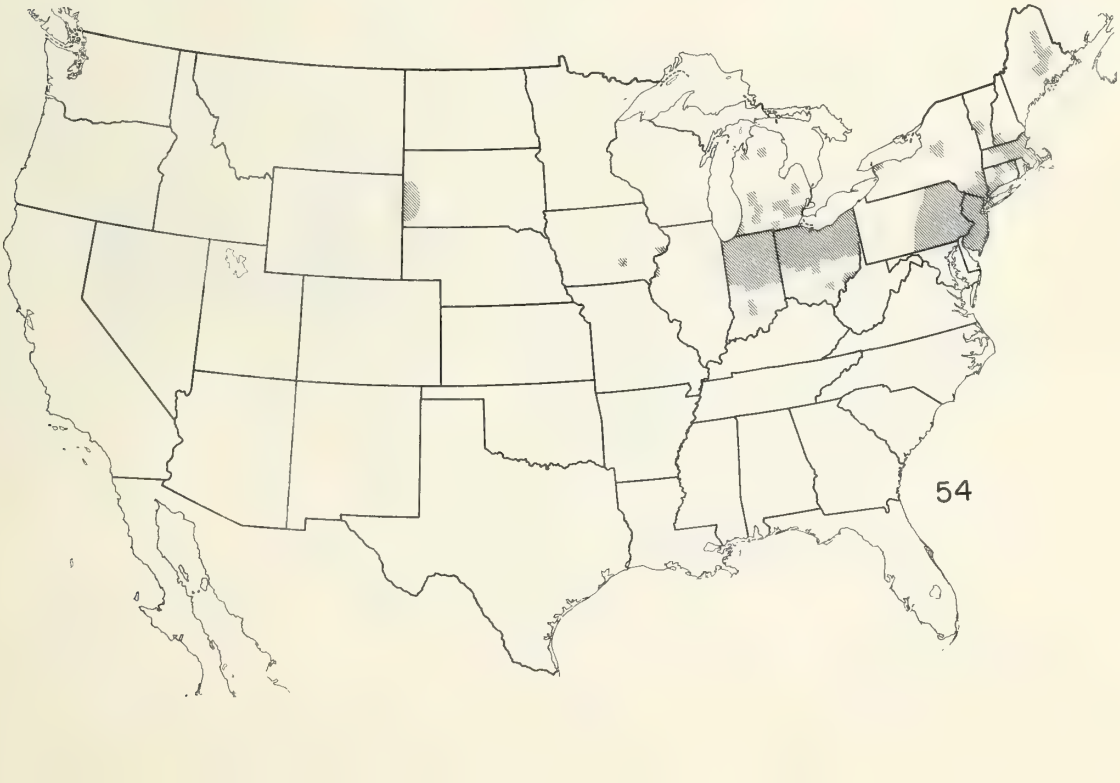
FOREST INSECTS

Homadaula albizziae (mimosa webworm)



53

Neodiprion sertifer (European pine sawfly)



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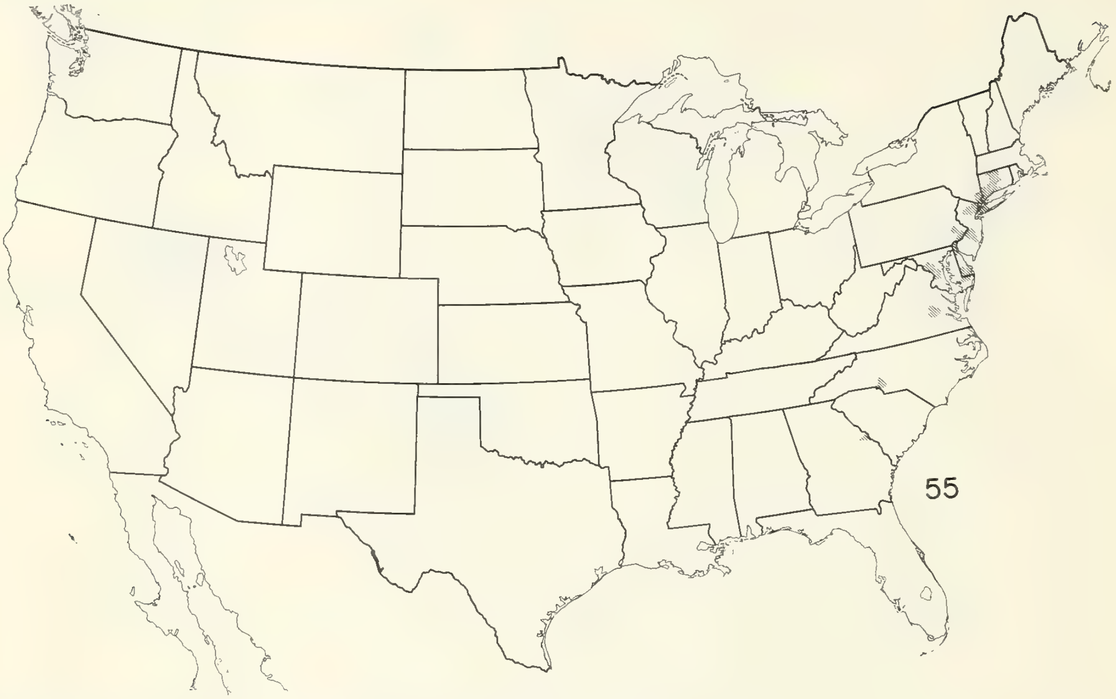
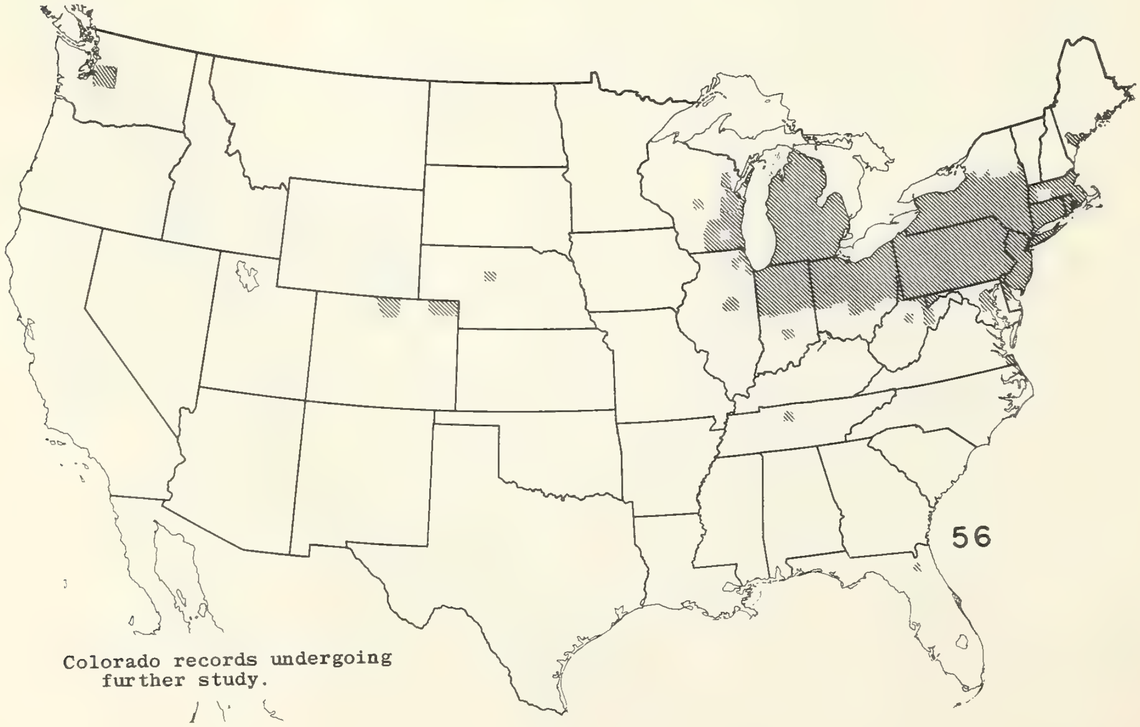
FOREST INSECTS

Pseudocneorhinus bifasciatus (a Japanese weevil)



55

Rhyacionia buoliana (European pine shoot moth)



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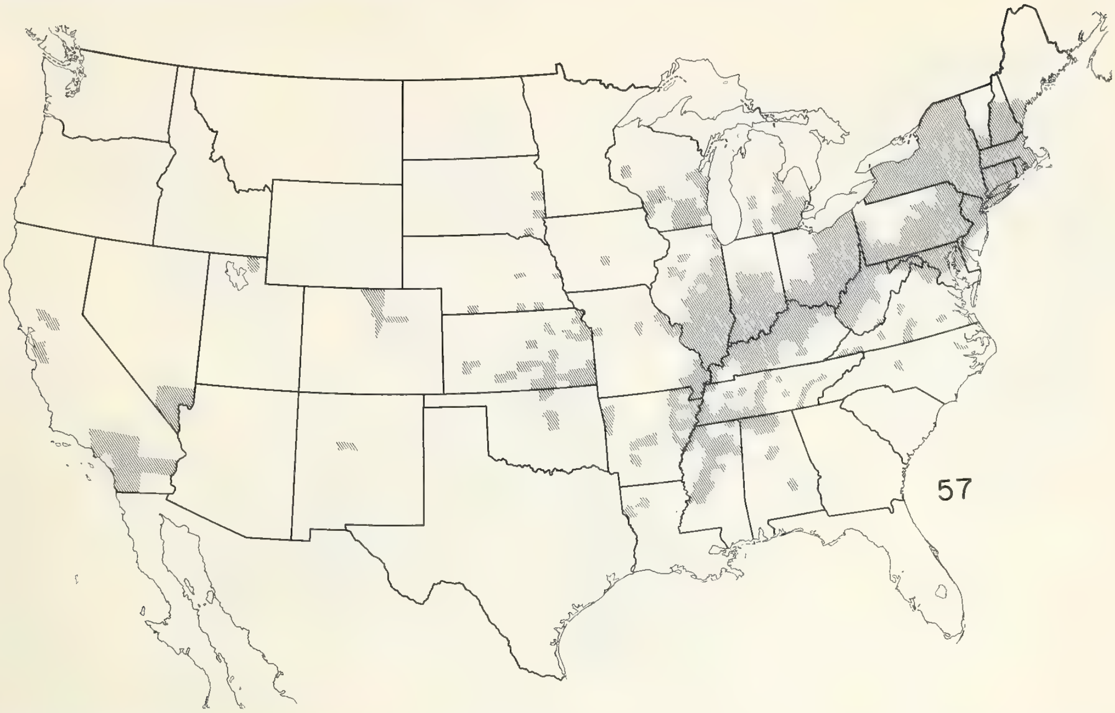
Colorado records undergoing further study.

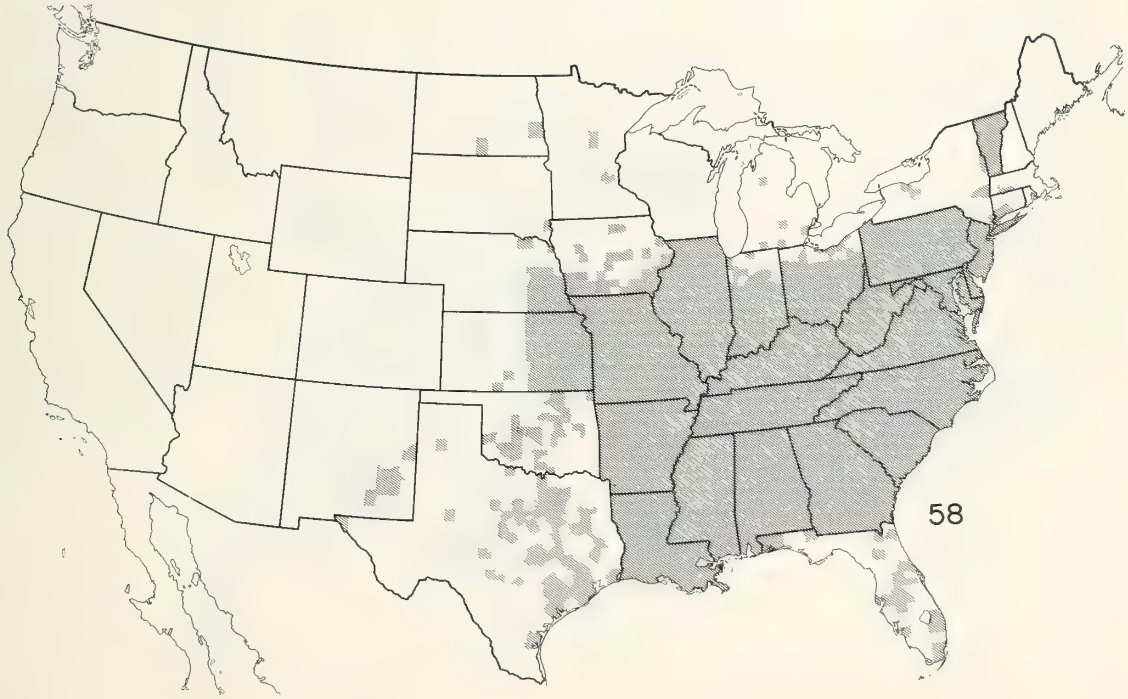
FOREST INSECTS

Scolytus multistriatus (smaller European elm bark beetle)



57

Thyridopteryx ephemeraeformis (bagworm)



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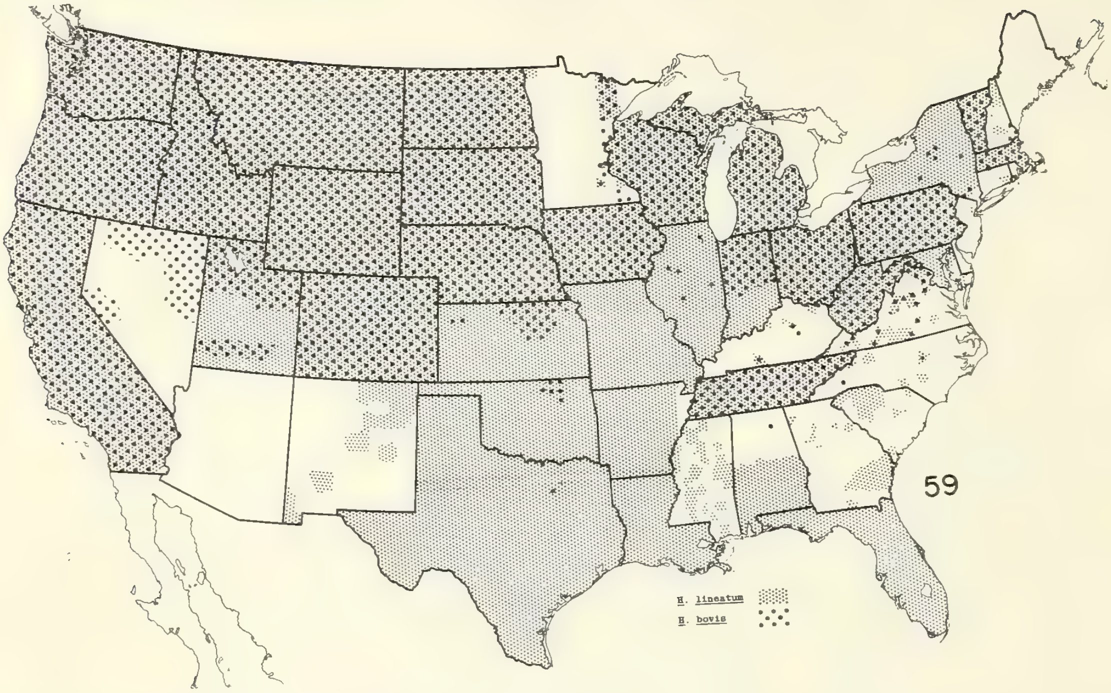
INSECTS AFFECTING MAN AND ANIMALS

Hypoderma spp. (cattle grubs)



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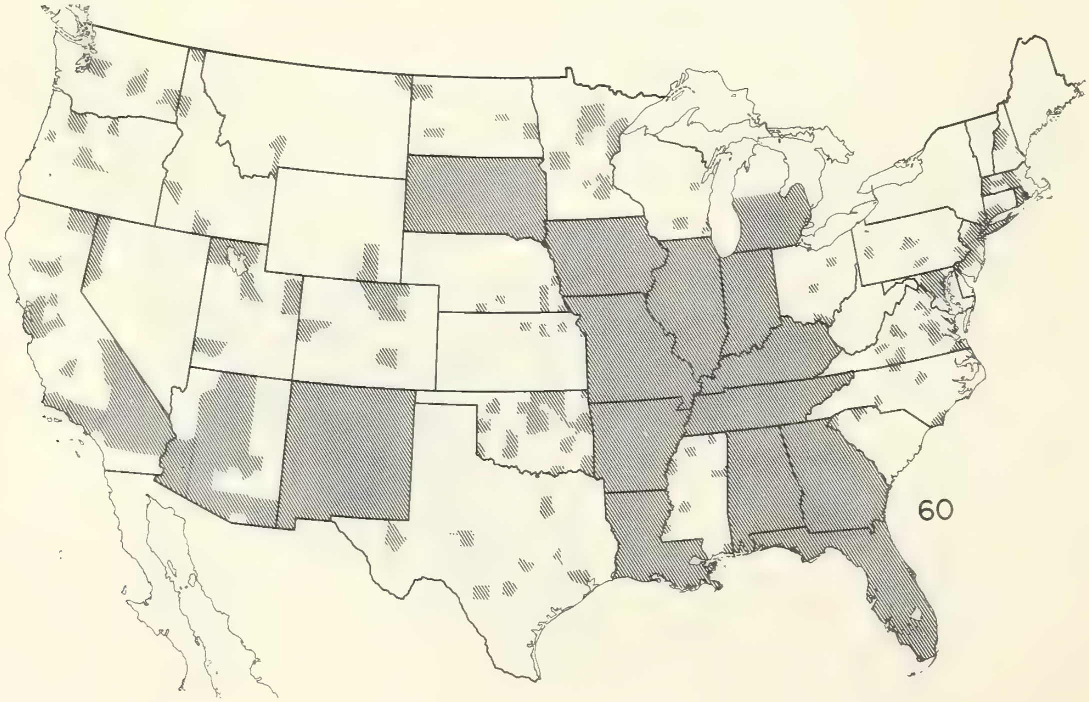
Supella supellectilium (brown-banded roach)



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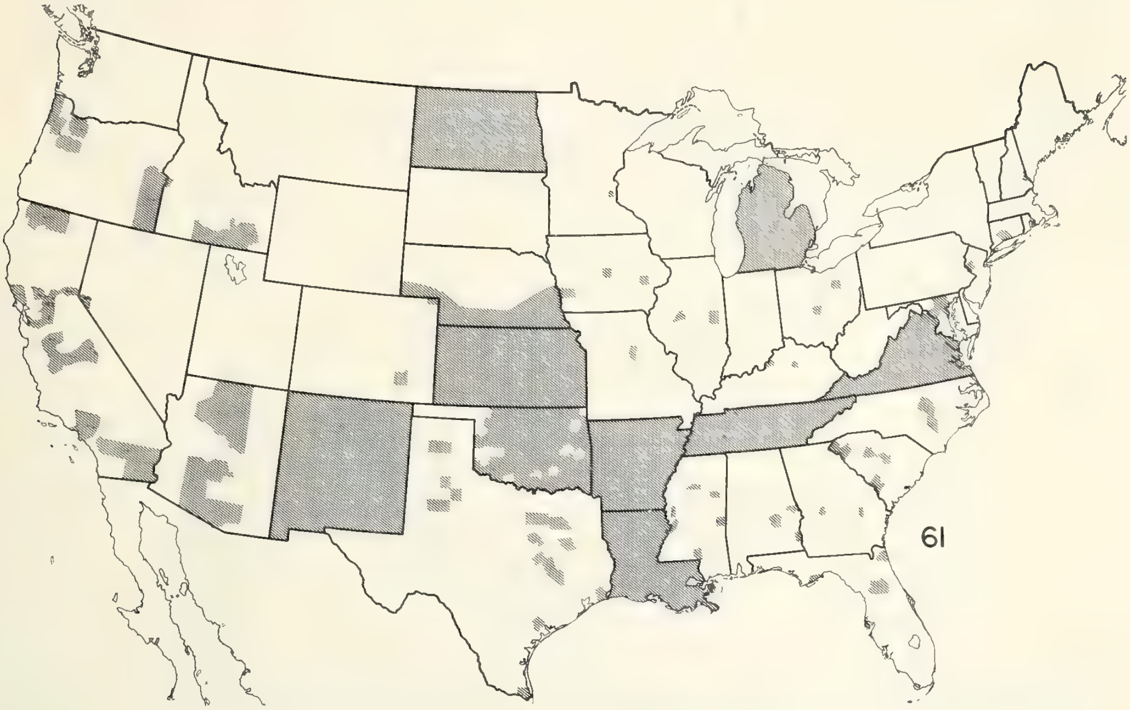
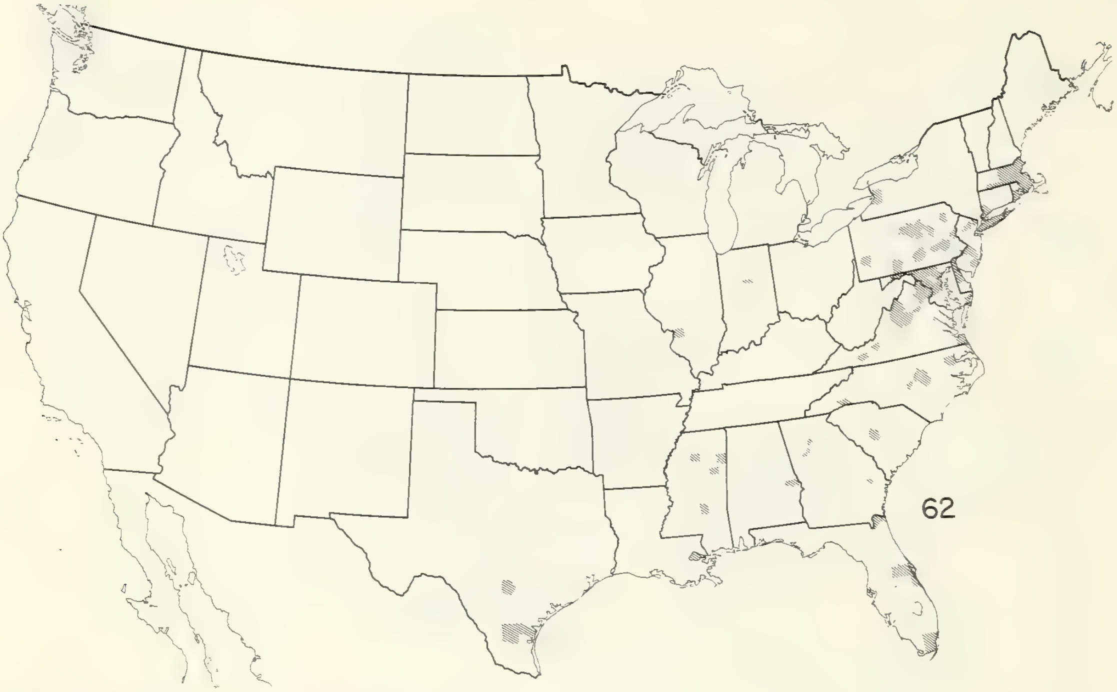
STORED-PRODUCT INSECTS

Rhyzopertha dominica (lesser grain borer)



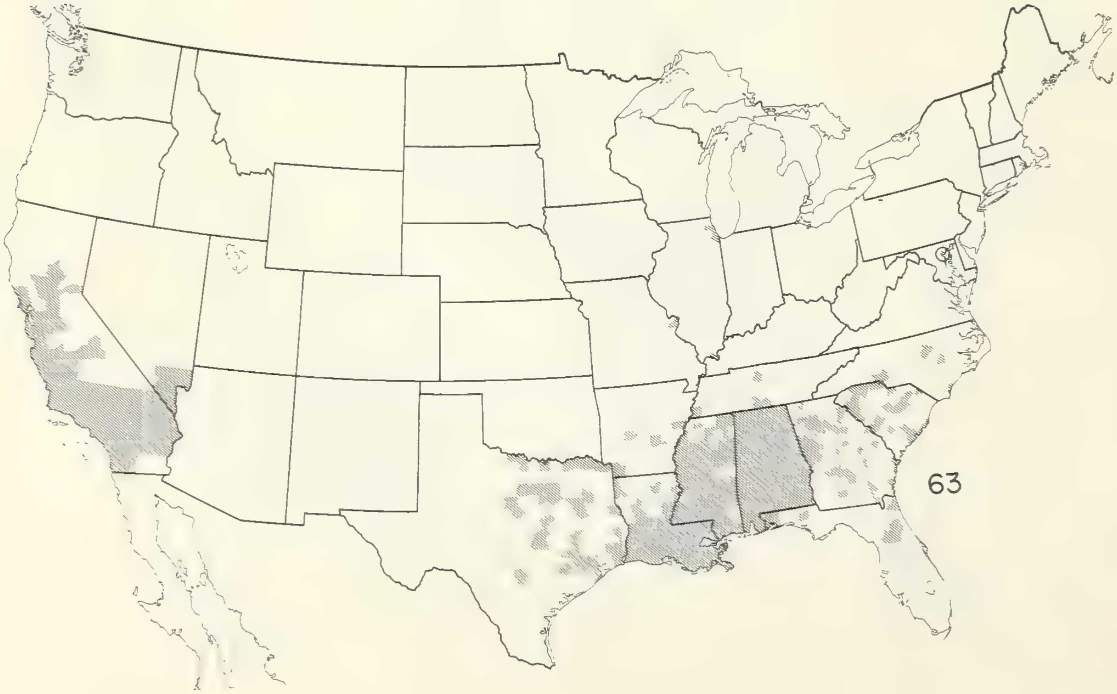
MISCELLANEOUS INSECTS

Hylotrupes bajulus (old-house borer)



62

Iridomyrmex humilis (Argentine ant)



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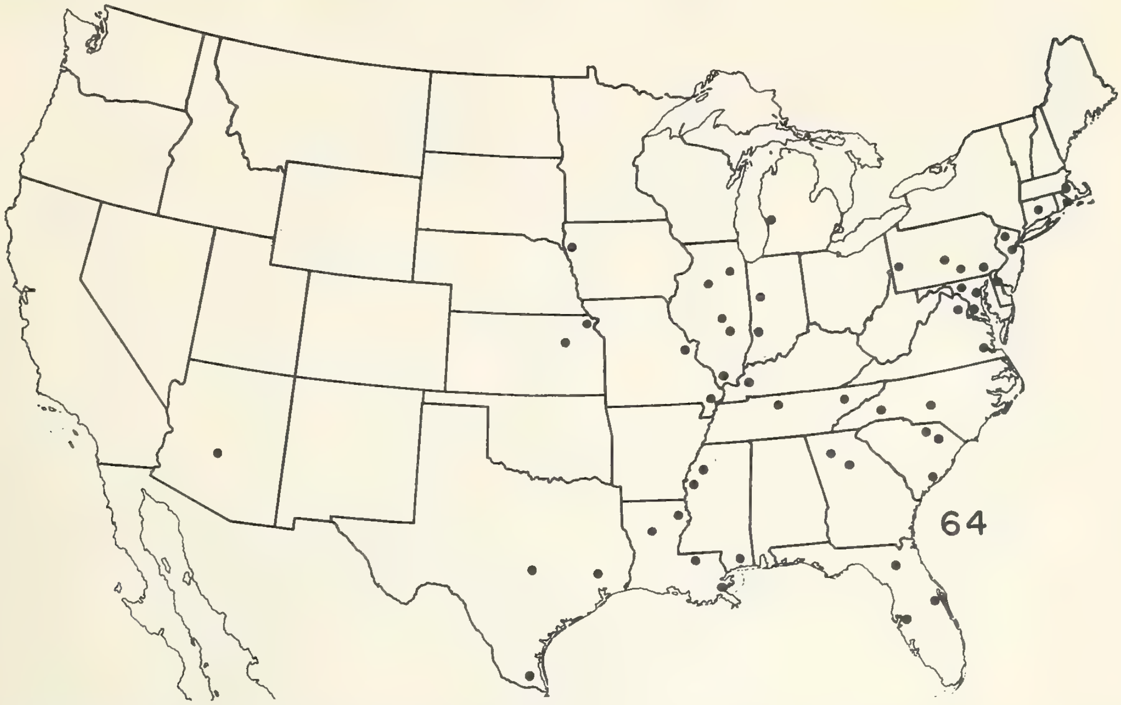
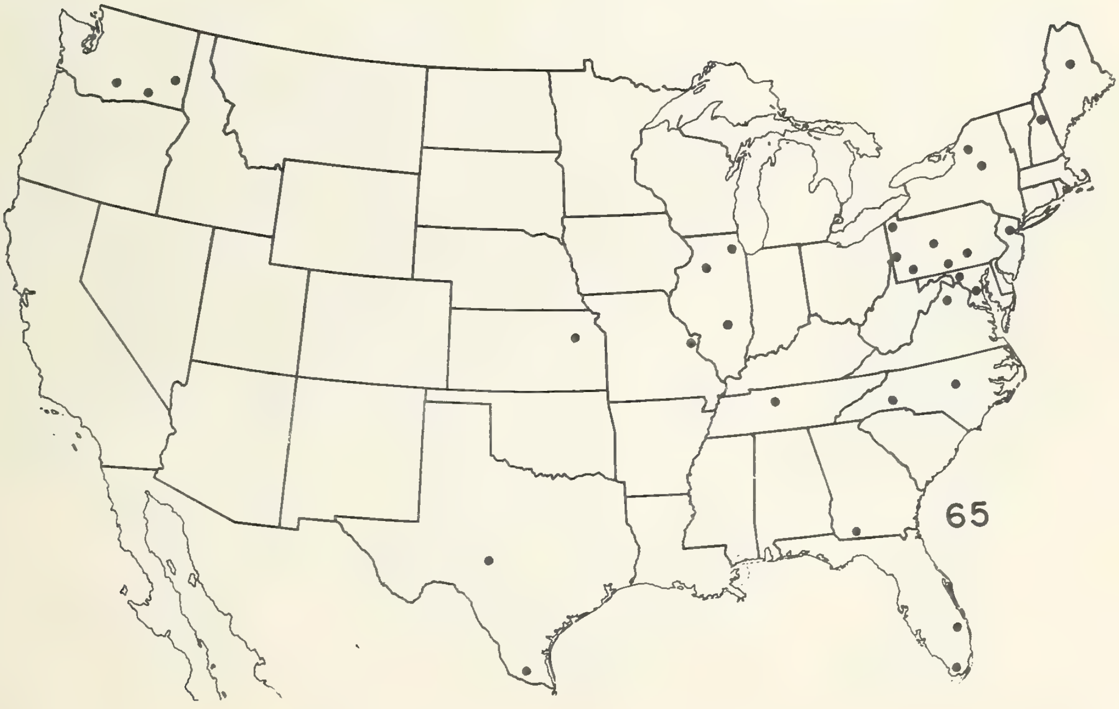
MISCELLANEOUS INSECTS

Platynota flavedana (a leaf roller)

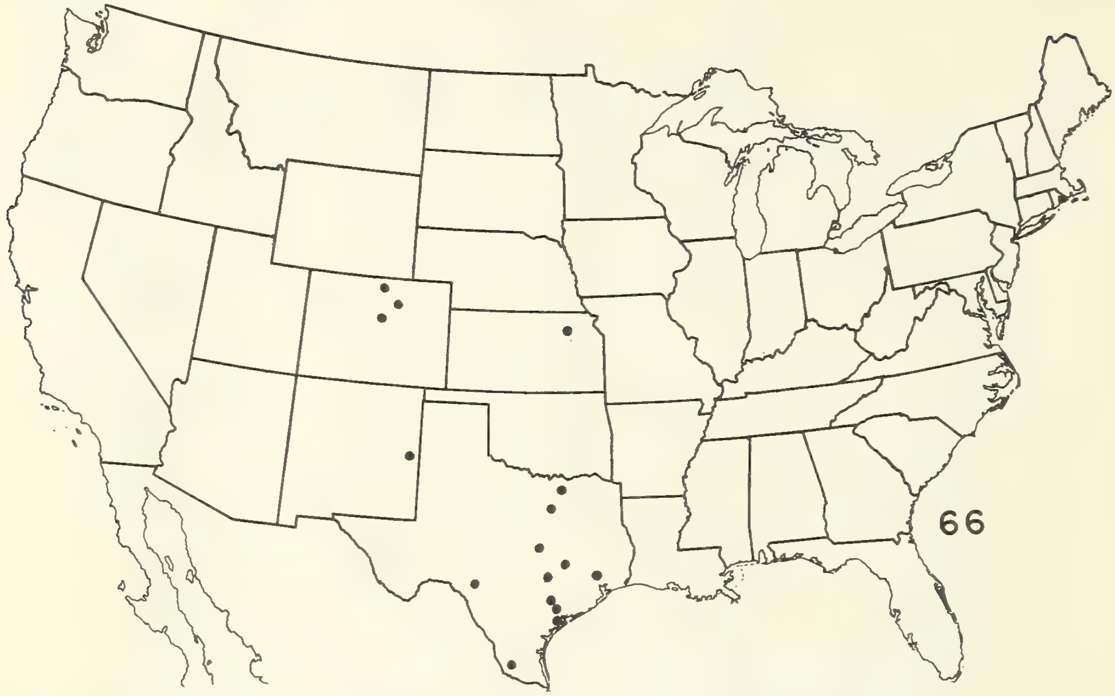


Platynota idaeusalis (a leaf roller)

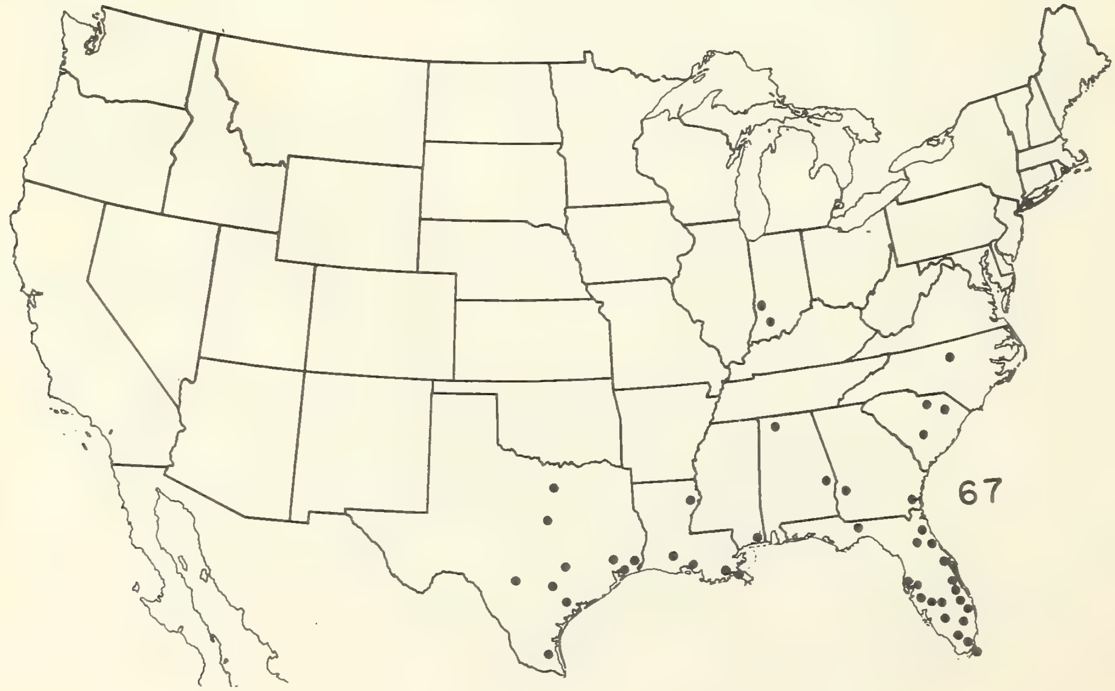


MISCELLANEOUS INSECTS

Platynota nigrocervina (a leaf roller)

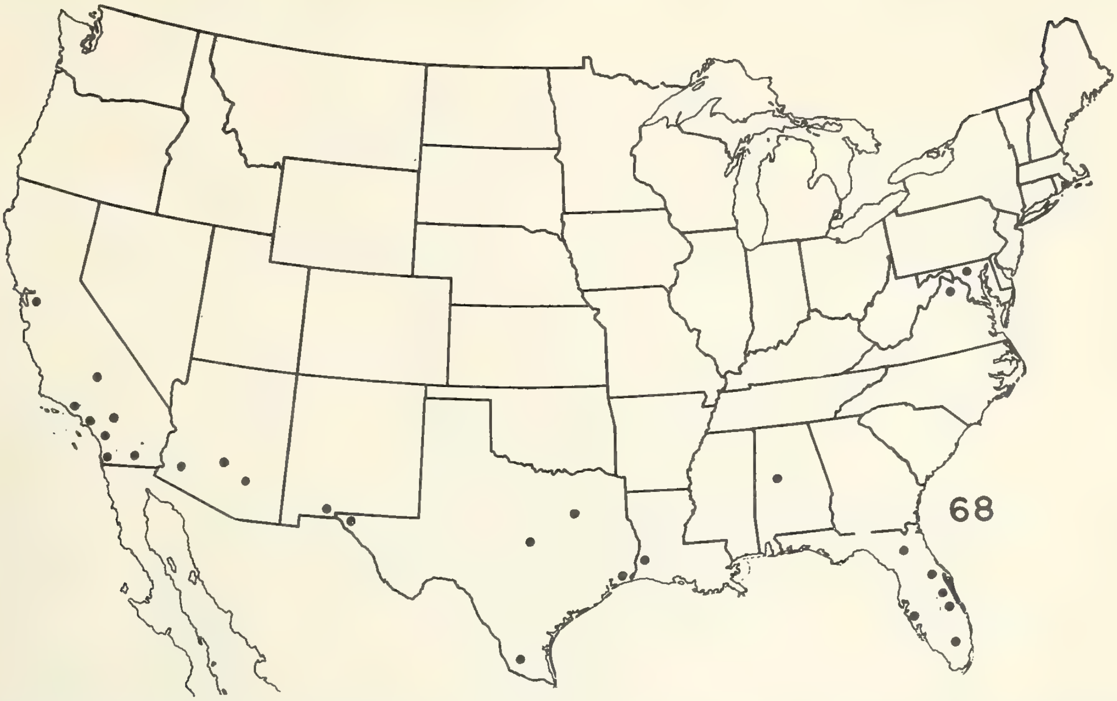


Platynota rostrana (a leaf roller)



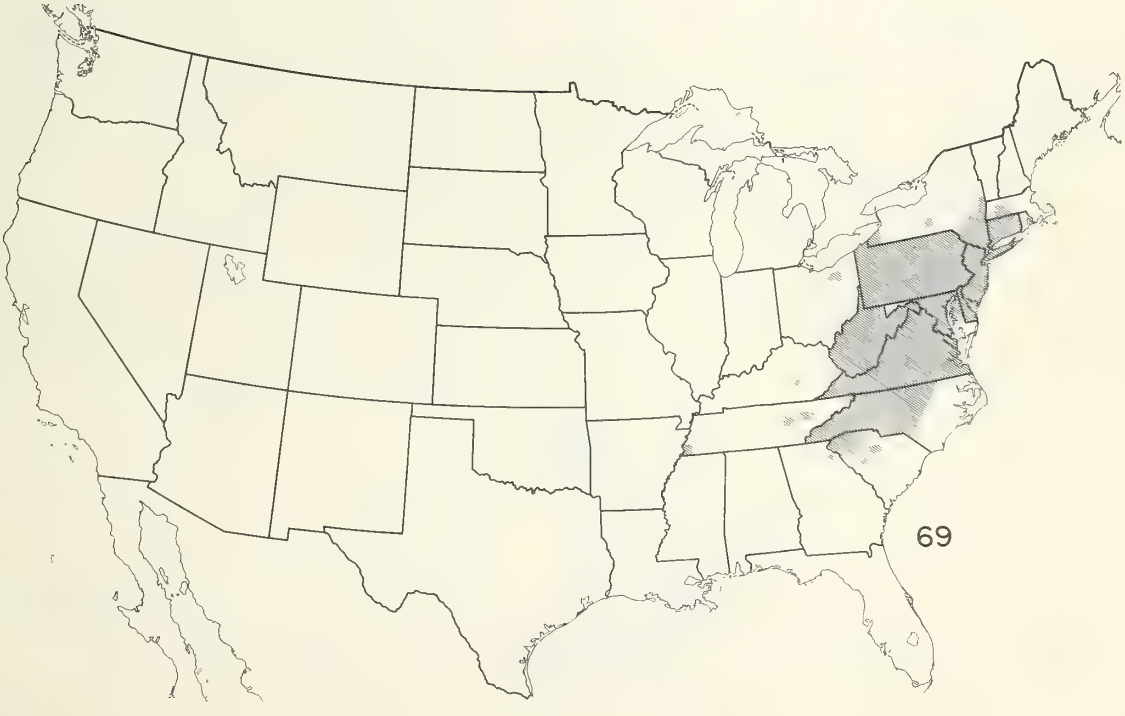
MISCELLANEOUS INSECTS

Platynota stultana (a leaf roller)



68

Vespa crabro germana (giant hornet)



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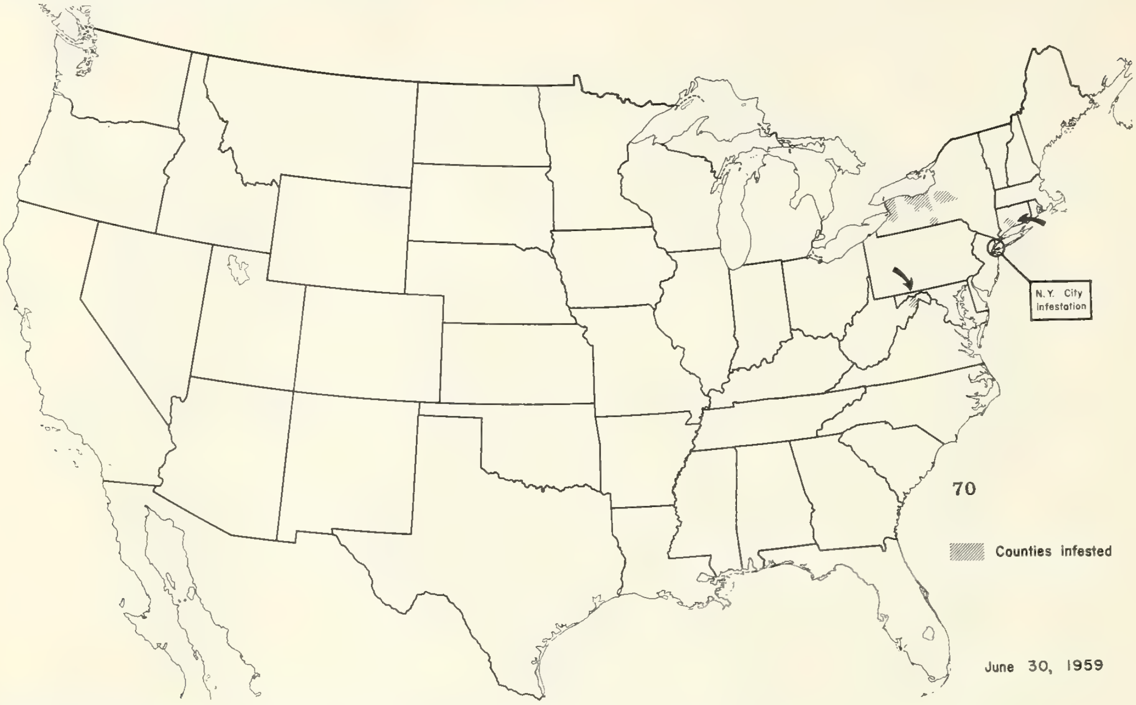
SOME INSECTS AND NEMATODES UNDER STATE OR FEDERAL REGULATION

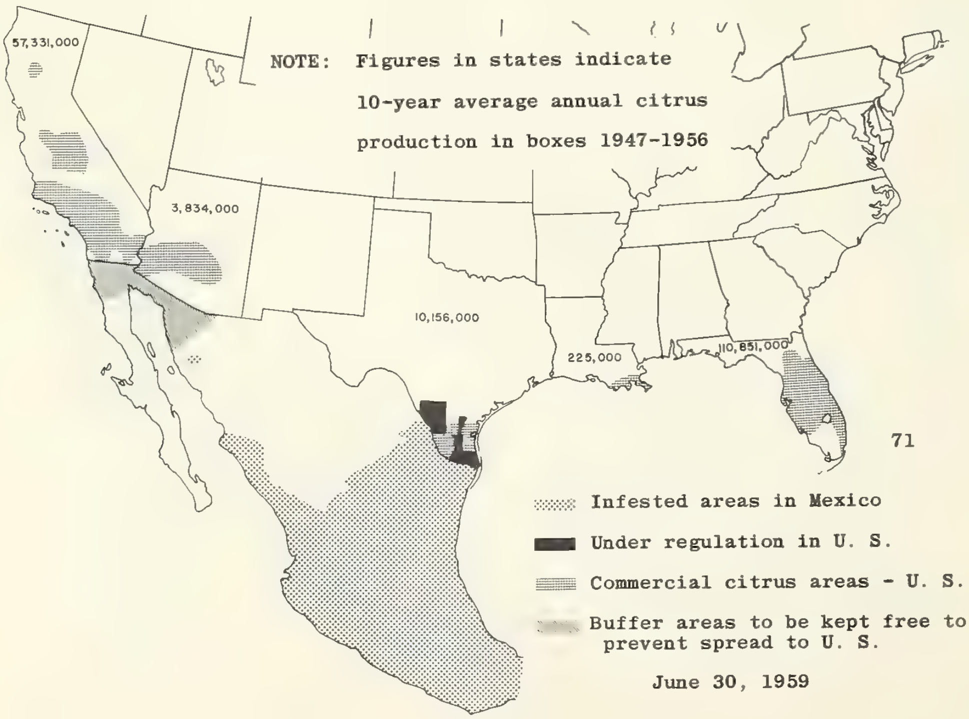
Amphimallon majalis (European chafer)



▨ Counties infested

June 30, 1959

Anastrepha ludens (Mexican fruit fly)



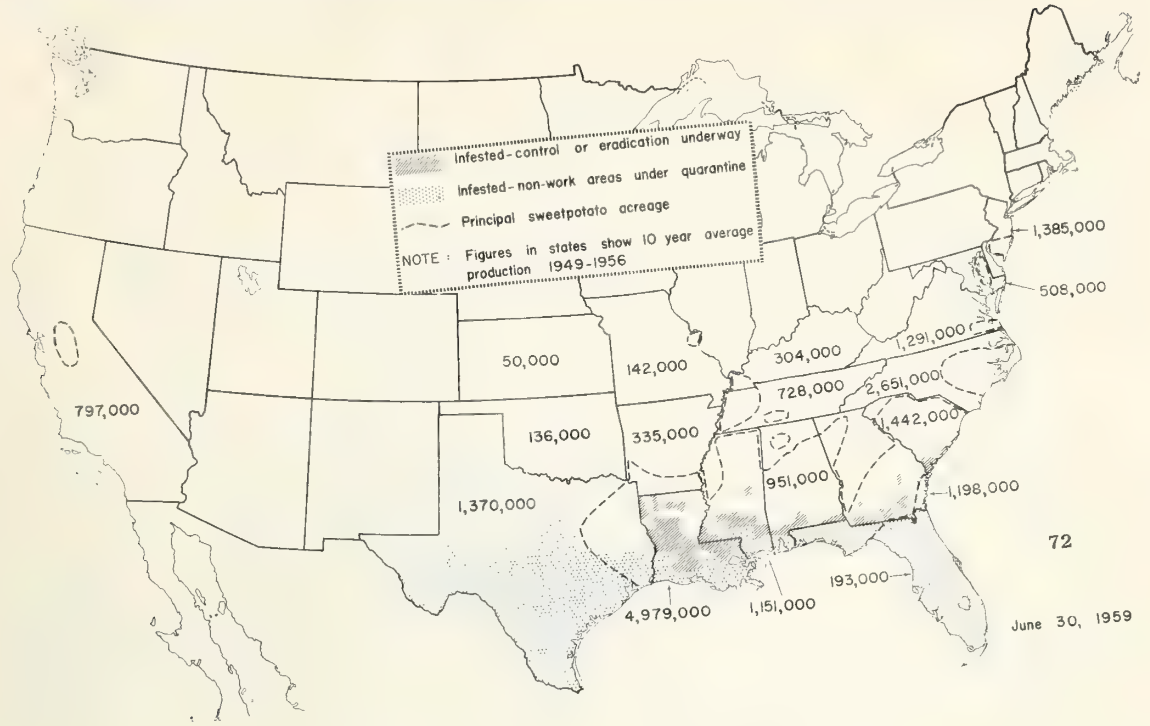
NOTE: Figures in states indicate 10-year average annual citrus production in boxes 1947-1956

- ░ Infested areas in Mexico
- ■ Under regulation in U. S.
- ▤ Commercial citrus areas - U. S.
- ▒ Buffer areas to be kept free to prevent spread to U. S.

June 30, 1959

SOME INSECTS AND NEMATODES UNDER STATE OR FEDERAL REGULATION

Cylas formicarius elegantulus (sweetpotato weevil)

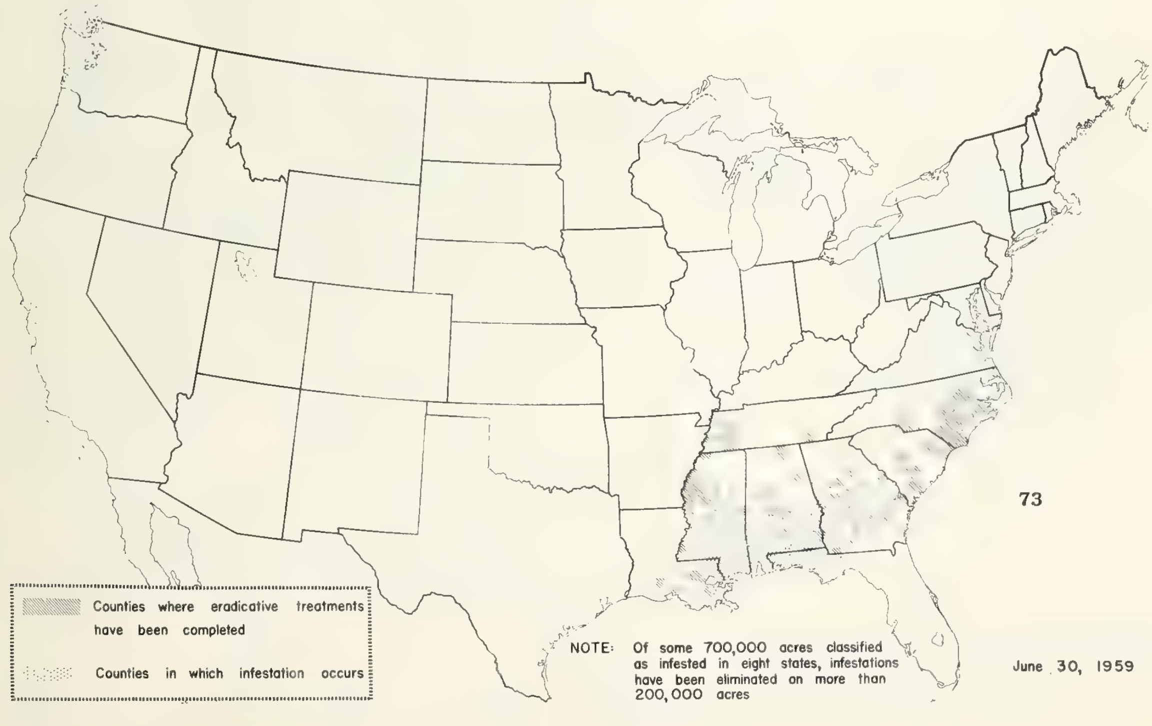


NOTE : Figures in states show 10 year average production 1949-1956

72

June 30, 1959

Graphognathus spp. (white-fringed beetles)


▨ Counties where eradicative treatments have been completed
░ Counties in which infestation occurs

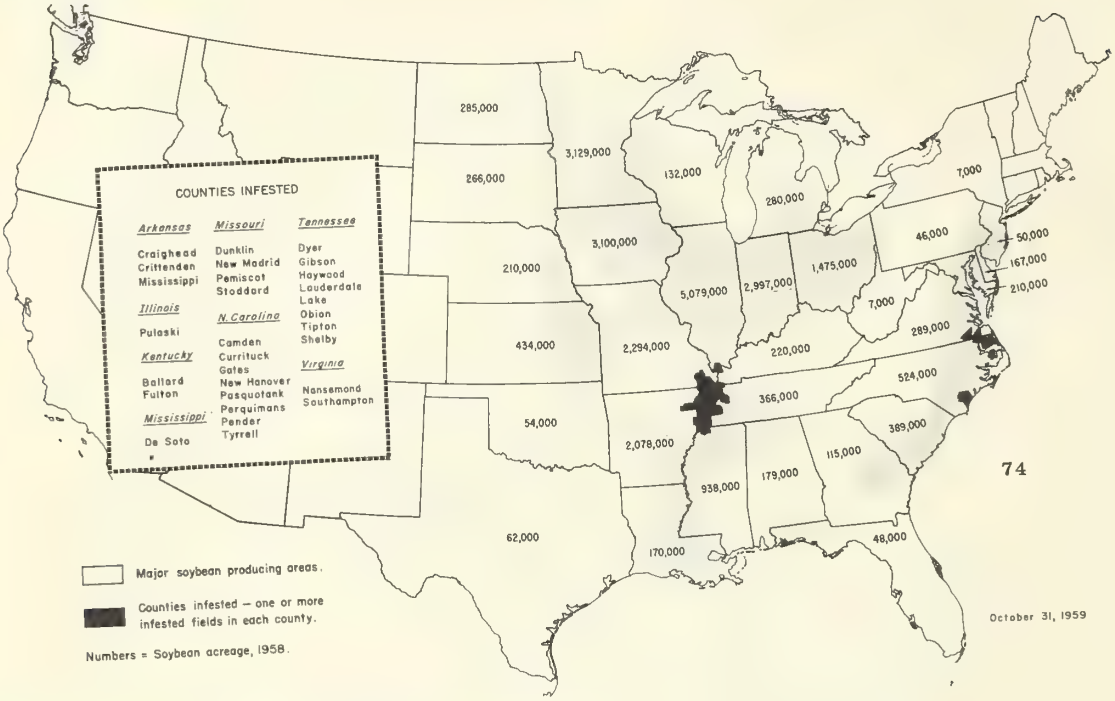
NOTE: Of some 700,000 acres classified as infested in eight states, infestations have been eliminated on more than 200,000 acres

73

June 30, 1959

SOME INSECTS AND NEMATODES UNDER STATE OR FEDERAL REGULATION

Heterodera glycines (soybean cyst nematode)



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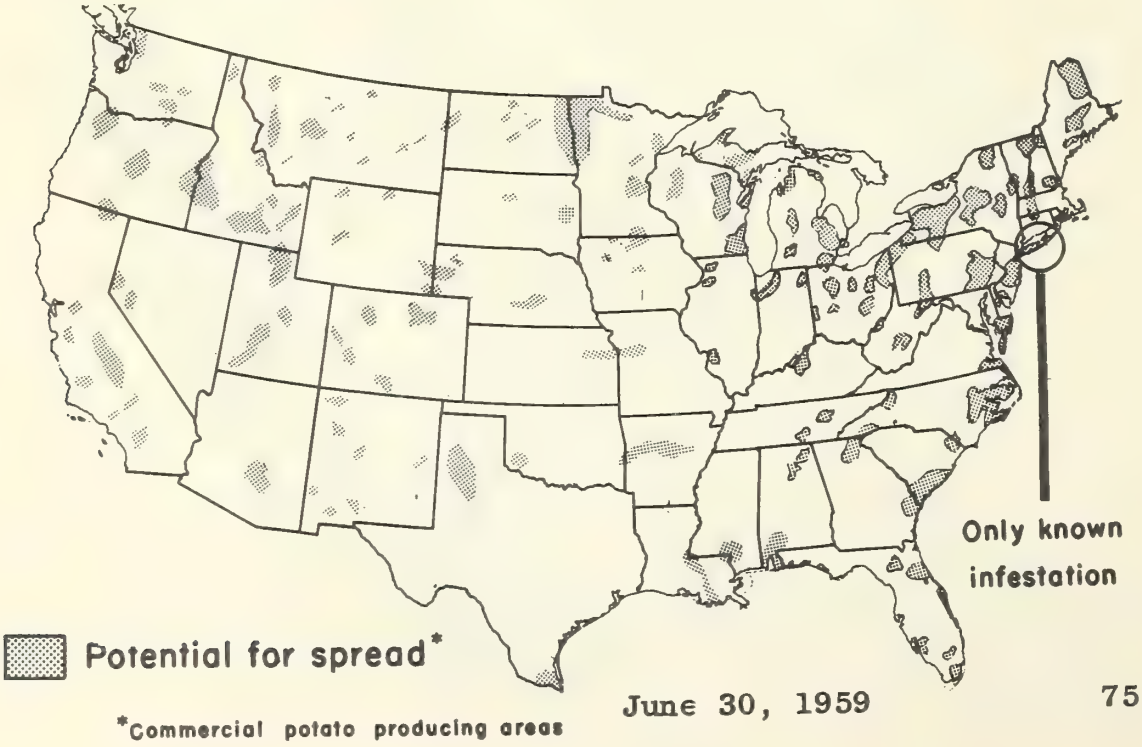
Heterodera rostochiensis (golden nematode)



June 30, 1959

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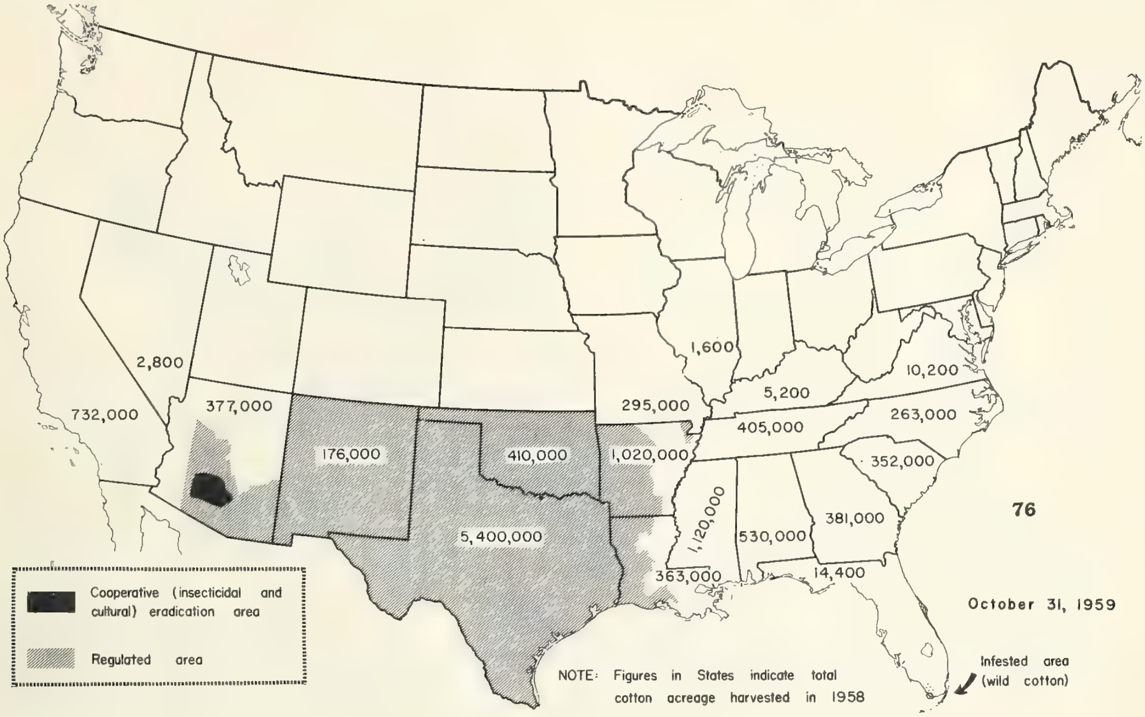
SOME INSECTS AND NEMATODES UNDER STATE OR FEDERAL REGULATION

Pectinophora gossypiella (pink bollworm)



NOTE: Figures in States indicate total cotton acreage harvested in 1958

October 31, 1959

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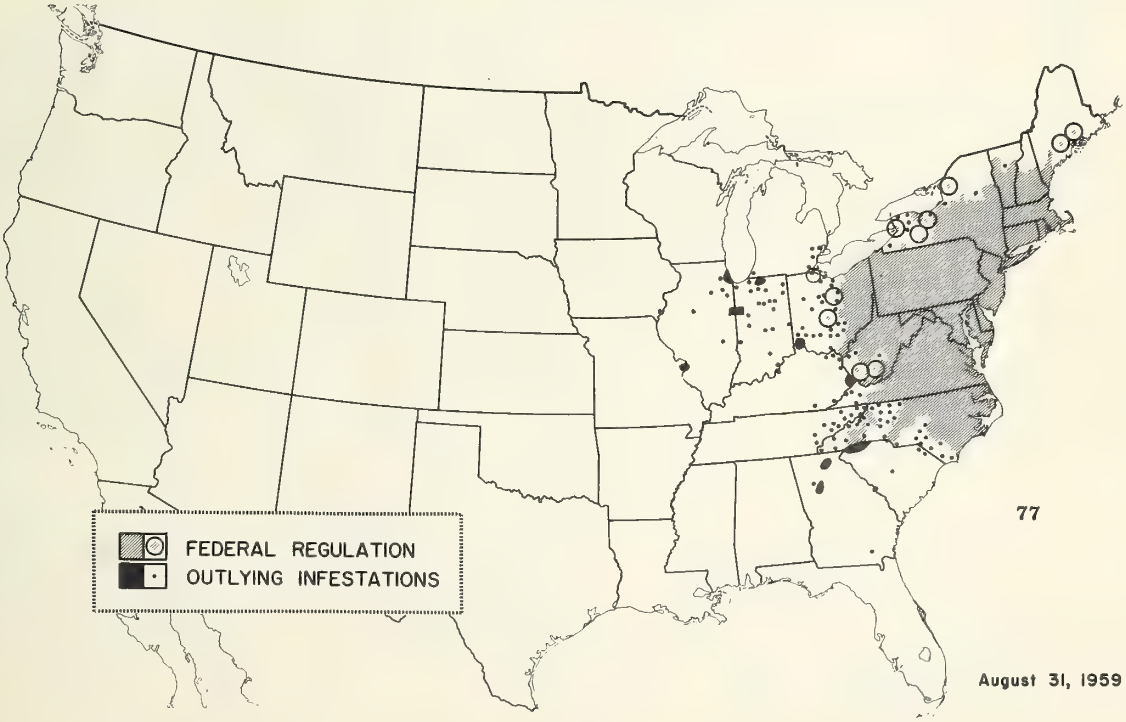
Popillia japonica (Japanese beetle)



August 31, 1959

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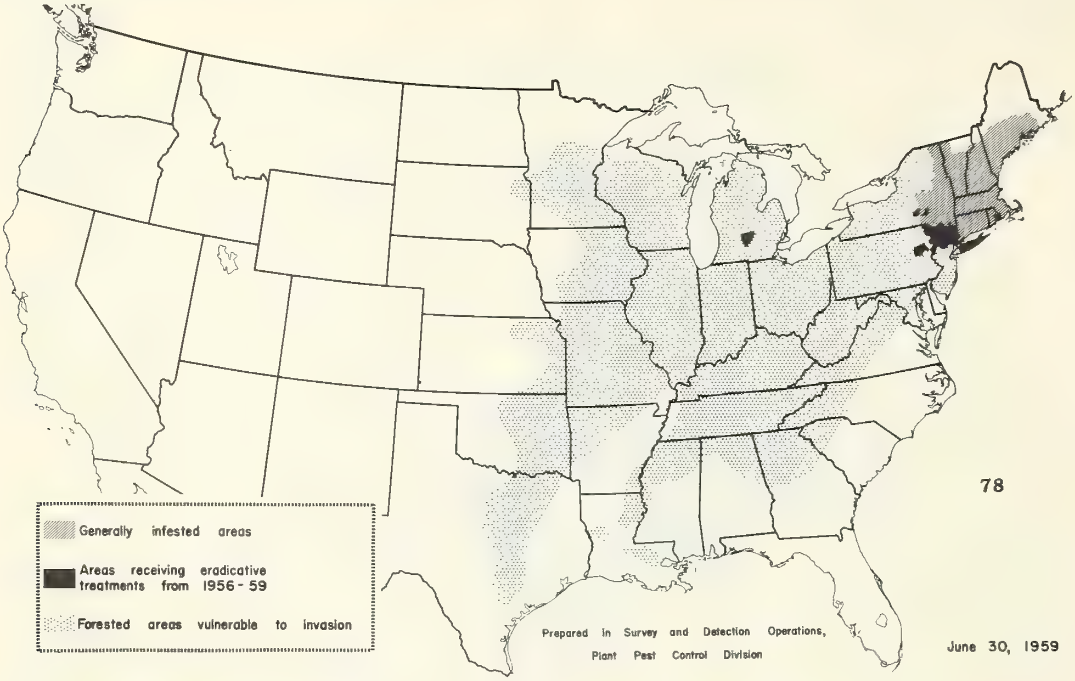
SOME INSECTS AND NEMATODES UNDER STATE OR FEDERAL REGULATION

Porthetria dispar (gypsy moth)


▨ Generally infested areas
■ Areas receiving eradicative treatments from 1956 - 59
░ Forested areas vulnerable to invasion

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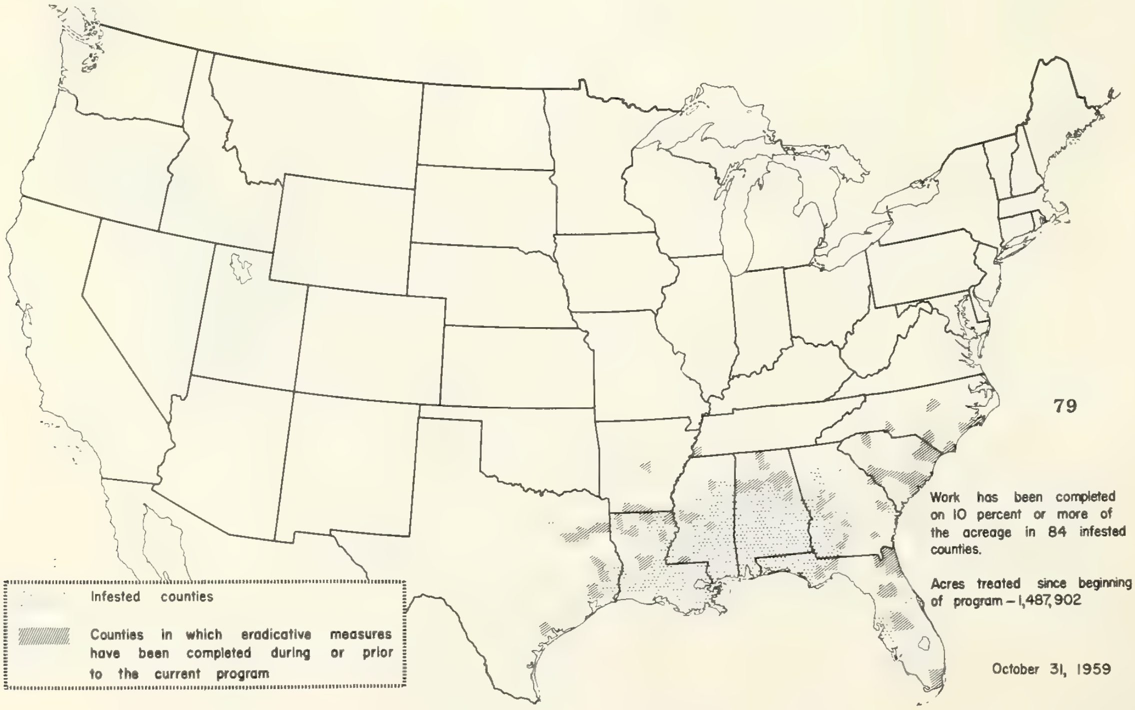
Prepared in Survey and Detection Operations, Plant Pest Control Division

June 30, 1959

Solenopsis saevissima richteri (imported fire ant)


░ Infested counties
▨ Counties in which eradicative measures have been completed during or prior to the current program

79

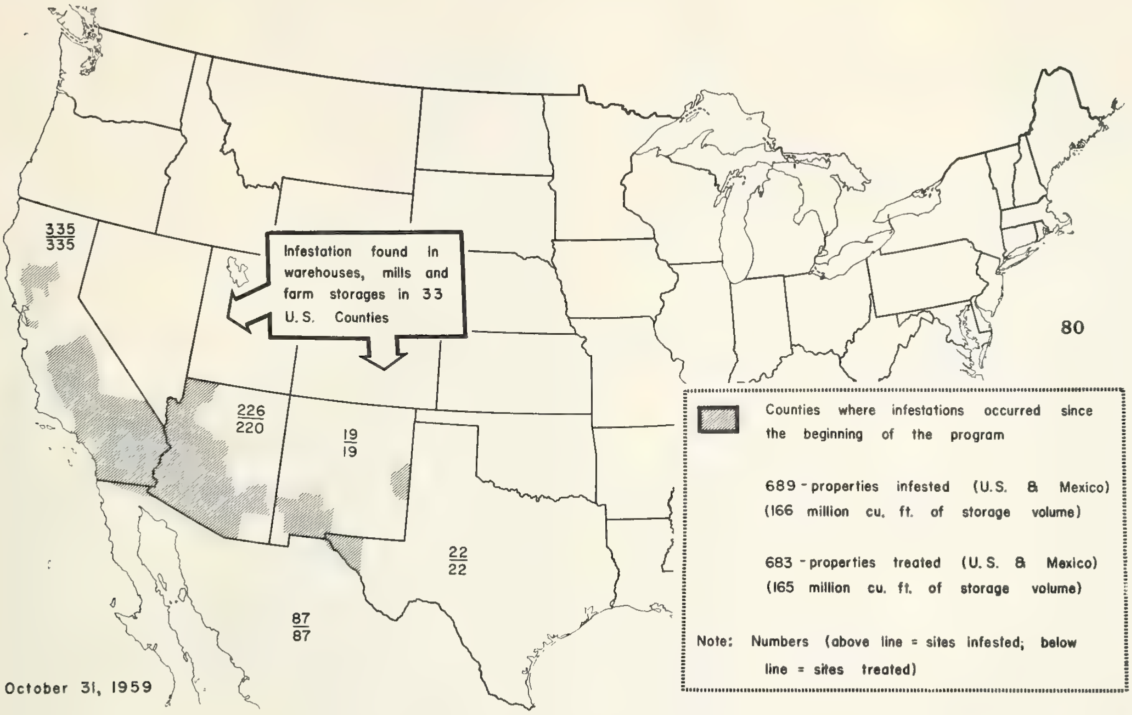
Work has been completed on 10 percent or more of the acreage in 84 infested counties.

Acres treated since beginning of program – 1,487,902

October 31, 1959

SOME INSECTS AND NEMATODES UNDER STATE OR FEDERAL REGULATION

Trogoderma granarium (khapra beetle)


Infestation found in warehouses, mills and farm storages in 33 U. S. Counties
335/335
226/220
19/19
22/22
87/87
80
▨ Counties where infestations occurred since the beginning of the program
689 - properties infested (U.S. & Mexico) (166 million cu. ft. of storage volume)
683 - properties treated (U. S. & Mexico) (165 million cu. ft. of storage volume)
Note: Numbers (above line = sites infested; below line = sites treated)
October 31, 1959

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